2003 Epidemiologic Profiles of HIV Disease and STDs in Missouri

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MISSOURI *2003 EPIDEMIOLOGIC PROFILES of HIV DISEASE and STDs in MISSOURI*

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Guidelines for Interpreting the *2003 Epidemiologic Profiles of HIV Disease and STDs in Missouri*

What's New for 2003

The Division of HIV/AIDS Prevention at the Centers for Disease Control and Prevention (CDC) has increased participation with each of the states in the development of the HIV/AIDS Epidemiologic Profiles. CDC is encouraging the states to make the profiles standardized and yet allow for the portrayal of unique situations within each state. The Missouri Department of Health and Senior Services (DHSS), Office of Surveillance, HIV/AIDS Surveillance Program is also committed to making the profiles more useful to HIV/AIDS community planning groups, Ryan White Consortia groups, and DHSS HIV Prevention and Care staff. Therefore, in an effort to respond to the CDC and comments we have received so far from these groups, several changes to the Profiles have been implemented this year.

Date of diagnosis

Historically, this document has focused on reporting HIV Disease by year of report. Recently, the CDC has stressed the importance of describing the HIV epidemic by date of diagnosis. Most of the data presented in this year's profiles are presented by date of diagnosis, although some of the data are presented by year of report to assist our readers in the transition. Individuals diagnosed with HIV infection who have not progressed to AIDS are generally closer to the time of initial infection than are individuals with AIDS. Also, examining changes in reported HIV cases over time by date of diagnosis could potentially provide a general estimate of current trends in new HIV infections in the population(s) being considered. There are also inherent problems when presenting the data by date of report that are eliminated when presented by date of diagnosis. In Missouri, the date of report is the day that the case is entered into the HIV/AIDS Reporting System (HARS) database. Entry of data can be delayed by many factors, such as: how quickly the data form is sent from the testing agency to DHSS; personnel changes among data entry staff; work load of data entry staff; etc. Using the date of diagnosis eliminates the impact of these issues for HIV/AIDS surveillance. This approach does have potential limitations. For many reported HIV cases, initial diagnosis of infection did not occur until several years after initial infection, so at best the trends in reported HIV cases can only approximate actual trends in new HIV infections. In addition, to be diagnosed as an HIV case, the individual must first have been tested for HIV infection. Because members of certain subpopulations may be more, or less, likely to be tested, different subpopulations could be over- or under-represented among diagnosed and reported HIV cases. Also, if changes in testing behavior among at-risk persons, or their health care providers, have occurred over time, this could lead to an increase, or decrease, in the numbers of cases diagnosed and reported.

Adjustment for delayed reporting

Reporting case data by date of diagnosis does not eliminate all delayed reporting issues. The CDC also recommends that states make adjustments that will compensate for delayed reporting problems. In Missouri, the Epidemiologic Profiles report for each year is produced during the first half of the following year. The data set from the HARS database that is used to produce the profile for each year is created just after the first of each year. This data set is then used to develop all of the charts and tables depicted in the Epidemiologic Profiles for the previous year. Not every case diagnosed during the previous year has been reported to DHSS as of the date this data set is created. To adjust for this, estimates were made, based on past experience, of the additional number of cases expected to ultimately be reported, and these expected cases were added to those already reported to estimate the total number of cases diagnosed in 2003.

CDC recommends that the number of cases be adjusted for late reporting, and then rounded up to the nearest five. This procedure was followed for adjustments at the state level for these profiles, but not at the regional level. Due to the adjustment procedure and rounding issues, the numbers reported in the state summary for the Kansas City Region are slightly different than the numbers reported in the section for that region. Looking at Table 5 (from the Missouri State Summary section of the profiles) on the next page, you will see that the number of AIDS cases diagnosed in 2003 in the Kansas City HIV Region is 34 (in red). However, in Table 3 (next page) from the Kansas City Regional section of the profiles, you will see 33 (in red) is the number of AIDS cases diagnosed in 2003. The rate per 100,000 is the same for both, 2.9. If your area of interest is regional, we recommend using the numbers

reported in the Kansas City regional section, and if your interest is at the state level, then use the numbers presented in the state summary section.

Table 5. HIV and AIDS Cases and Rates by Geographic Area, Missouri
Diagnosed 2003 and Cumulative Through December 2003*

Geographic Area	HIV Cases						AIDS Cases					
	Diagnosed 2003**			Cumulative			Diagnosed 2003**			Cumulative		
	Cases	%	Rate	Cases	%	Rate	Cases	%	Rate	Cases	%	Rate
Location												
St. Louis City†	158	41.0%	45.4	1,480	30.0%	425.1	29	23.2%	8.3	2,844	28.7%	816.8
St. Louis County†	42	10.9%	4.1	683	13.8%	67.2	14	11.2%	1.4	1,518	15.3%	149.4
Kansas City†	78	20.3%	17.7	1,199	24.3%	271.5	26	20.8%	5.9	2,709	27.3%	613.5
Outstate†	76	19.7%	2.0	1,223	24.8%	32.3	50	40.0%	1.3	2,573	26.0%	67.9
Missouri Correctional Facilities††	31	8.1%	N/A	353	7.1%	N/A	6	4.8%	N/A	261	2.6%	N/A
Total	385	100.0%	6.9	4,938	100.0%	88.3	125	100.0%	2.2	9,905	100.0%	177.0
HIV Region												
St. Louis HIV Region†	207	53.8%	10.3	2,312	46.8%	115.4	48	38.4%	2.4	4,720	47.7%	235.6
Kansas City HIV Region†	92	23.9%	8.0	1,438	29.1%	124.5	34	27.2%	2.9	3,294	33.3%	285.2
Northwest HIV Region†	1	0.3%	0.4	49	1.0%	20.3	0	0.0%	0.0	156	1.6%	64.8
North Central HIV Region†	16	4.2%	2.2	215	4.4%	30.2	13	10.4%	1.8	427	4.3%	60.0
Southwest HIV Region†	28	7.3%	2.8	423	8.6%	42.0	19	15.2%	1.9	767	7.7%	76.2
Southeast HIV Region†	10	2.6%	2.1	148	3.0%	31.0	5	4.0%	1.0	280	2.8%	58.6
Missouri Correctional Facilities††	31	8.1%	N/A	353	7.1%	N/A	6	4.8%	N/A	261	2.6%	N/A
MISSOURI	385	100.0%	6.9	4,938	100.0%	88.3	125	100.0%	2.2	9,905	100.0%	177.0

*Includes living and deceased cases. Rates are per 100,000 population.

**HIV cases diagnosed and reported to the state during 2003 which remained HIV cases at the end of that year. Number of cases are adjusted to compensate for delayed reporting for 2003.

† Does not include persons living in correctional facilities at the time of diagnosis

†† Includes state, county, and local correctional facilities.

Table 3. HIV and AIDS Cases and Rates by Geographic Area, Kansas City Region
Reported 2003 and Cumulative Through December 2003

Geographic Area	HIV Cases						AIDS Cases					
	Diagnosed 2003*			Cumulative			Diagnosed 2003			Cumulative		
	Cases	%	Rate**	Cases	%	Rate**	Cases	%	Rate**	Cases	%	Rate**
Location												
Kansas City†	78	84.8%	17.7	1,199	83.4%	271.5	26	78.8%	5.9	2,709	82.3%	613.5
Jackson County†#	8	8.7%	2.4	125	8.7%	37.6	4	12.1%	1.2	341	10.4%	102.7
Clay County†#	1	1.1%	1.0	37	2.6%	37.0	1	3.0%	1.0	92	2.8%	92.0
Cass County†#	0	0.0%	0.0	17	1.2%	20.7	0	0.0%	0.0	44	1.3%	53.6
Platte County†#	0	0.0%	0.0	4	0.3%	10.2	0	0.0%	0.0	26	0.8%	66.4
Remainder of Region†	5	5.4%	3.1	56	3.9%	34.9	2	6.1%	1.3	80	2.4%	49.9
Kansas City HIV Region†	92	100.0%	8.0	1,438	100.0%	124.5	33	100.0%	2.9	3,292	100.0%	285.0

*HIV cases reported during 2003 which remained HIV cases at the end of that year.

**Per 100,000 population.

† Does not include persons living in correctional facilities at the time of diagnosis.

Outside the city limits of Kansas City

Describing the epidemic with prevalence rates

Many of the tables and charts in previous editions have presented cumulative (living and deceased) numbers of cases. This year we have added data describing the prevalence (number of living cases) of HIV and AIDS. We received feedback from Missouri HIV/AIDS Prevention and Care staff indicating that a detailed description of the currently living HIV affected individuals would be more valuable for program planning than cumulative numbers of cases. However, we have still included cumulative numbers for those who are interested.

Describing the epidemic with case rates

This year we have increased the use of rates per 100,000 population, along with the numbers and percentages of cases that describe the HIV/AIDS epidemic in Missouri. The formula for calculating rates per 100,000 population uses the total population of defined groups to be compared (males versus females, Whites versus Blacks, 30 to 39 year olds versus 40 to 49 year olds, etc.) to calculate standardized case rates. Using this formula allows for meaningful direct comparisons between groups and the identification of groups that may be disproportionately affected by HIV/AIDS. The 2000 U.S. Census Bureau population estimates are used to calculate case rates. (A case rate is calculated by dividing the number of disease cases in the population of interest by the total number of people in the population. Then multiply that number by 100,000 to get the rate per 100,000.)

Throughout this document we refer to incidence and prevalence rates in the discussion of case rates. Janes *et al*., define incidence rate as the "number of new cases of [a] specified condition [in a] given time" and point prevalence as the "number of current cases of [a] specified condition at [a] given time."[1] In this document we use point prevalence, although we refer to it only as prevalence. The time frame for calculation of incidence is the 2003 calendar year and the date for calculation of point prevalence is December 31, 2003. All data are stored in the HARS database. However, the exact incidence and prevalence of HIV/AIDS can never be determined. The best that can be done in our current system is to describe cases that have been diagnosed and reported to the Missouri Department of Health & Senior Services. There are some individuals that may have HIV/AIDS and have not been diagnosed as yet, or have been diagnosed, but have not yet been reported to the Department. Therefore, the terms incidence (referring to new cases) and prevalence (referring to living cases) as used in this document are defined by the two limitations just noted, and the numbers presented should be considered estimates.

Revised age groups

The age groups used in the demographic description of Missouri populations and in the analysis of HIV Disease have changed. The new age groups will assist programs to identify age groups to target in program planning activities and are illustrated in Table 2 on page 16 (Socio-Demographic Section).

General Information

- The ***2003 Epidemiologic Profiles of HIV Disease and STDs in Missouri*** report is intended to be a comprehensive summary of the epidemiology (i.e., incidence and prevalence being the most important) of HIV Disease and sexually transmitted diseases (STDs, specifically the bacterial STDs: gonorrhea, syphilis, and chlamydia) in Missouri through December 2003. Its primary audience is persons engaged in developing, evaluating, and modifying HIV/STD prevention services. The *2003 Epidemiologic Profiles* report should also serve as a useful reference for anyone wishing to understand the epidemiology of HIV disease and STDs in Missouri, and in each of the state's six HIV Regions.

- Persons with different interests and purposes have a need for HIV Disease and STD data. To respond to these differences, The *Epidemiologic Profiles* report uses several different formats to present these data, as well as other information important for understanding the occurrence of these diseases in Missouri:

    - Executive Summary and Analysis of HIV Disease and Sexually Transmitted Diseases in Missouri
      A summary/analysis of the epidemiology of HIV Disease and STDs in Missouri, including implications for prevention efforts.

    - Missouri Socio-Demographic Data
      A discussion of Missouri's demographic characteristics including race/ethnicity and age distribution for the state and each HIV region, with additional information on the different languages and cultures represented within the general population. Also, information regarding the number of people living below the poverty level and general level of education for the state population is presented.

    - Missouri State Summary
      A detailed description – using tables, graphs, maps, and text – of the epidemiology of HIV Disease and STDs in Missouri, using tables, graphs, maps and text.

[1]Janes GR, *et al*., "Descriptive Epidemiology: Analyzing and Interpreting Surveillance Data," in *Principles and Practice of Public Health Surveillance*, 2d ed. SM Teutsch and RE Churchill (New York: Oxford University Press, 2000), 130.

- Summaries of the Epidemiology of HIV Disease and STDs in each of Missouri's six HIV Regions
  These summaries are similar to the Missouri State Summary in presenting a detailed description – using tables, graphs, maps, and text – of the epidemiology of HIV Disease and STDs in each of the state's HIV Regions.
- Behavioral Survey Information
  Presents data from selected sections of the Missouri Behavioral Risk Factor Surveillance System (BRFSS) survey, the Missouri Youth Risk Behavior Survey (YRBS), and the School Health Education Profiles (SHEP).
- HIV/AIDS Care Data
  Presents data on access and utilization of care among HIV-infected individuals in Missouri.
- Internet Resources
  The Internet has become a very important source of information on HIV Disease and STDs for community planning groups, medical professionals, policy makers, and the general public. This section provides a listing of useful web sites.
- HIV/STD Statistics
  An eight-page summary – using tables, graphs, and maps – of the epidemiology of HIV Disease and STDs in Missouri.

- To understand the epidemiology of HIV Disease in Missouri as presented in this document, it is essential to know what is meant by the terms HIV Disease, HIV case, and AIDS case. From the time a person is infected with human immunodeficiency virus (HIV) until death, he/she has **HIV Disease**. All persons with HIV Disease can be subclassified as either an **AIDS case** (if they are in the later stages of the disease process and have met the case definition for AIDS) or an **HIV case** (if they are in the earlier stages of the disease process and have not met the AIDS case definition). Additional discussion of these terms is found throughout the document.

- The patterns of occurrence of AIDS cases (and deaths) are not only the result of past trends in HIV infections, but also reflect access to, utilization of, and the effectiveness of available treatments. In recent years, with the advent of highly active antiretroviral therapy (HAART), treatment-related issues have become very important factors in determining numbers of new AIDS cases (and deaths), and trends in AIDS cases can no longer be seen as reflecting trends in new HIV infections.

- HIV cases, which generally represent persons more recently infected, can potentially provide information regarding current HIV infection trends. HIV cases can also provide information on which subpopulations are presently at increased risk for acquiring HIV infection, and toward which prevention efforts should be targeted.

- Throughout this document, reference is made to HIV cases reported or diagnosed in 2003. This means HIV cases that are reported or diagnosed during that year, remained HIV cases at the end of the year. Those HIV cases reported or diagnosed in 2003, which later in the year became AIDS cases are not included (instead, these cases are included among AIDS cases reported or diagnosed in 2003).

- The information obtained on each reported case of HIV Disease includes the person's race/ethnicity. As a result, each case is classified as one of the following: White, non-Hispanic; Black, non-Hispanic; Hispanic; Asian/ Pacific Islander; or American Indian/Alaskan Native. In the text of this document, whenever HIV Disease cases are being discussed, the term "White" means White, non-Hispanic; and "Black" means Black, non-Hispanic. Beginning with the 2000 Census, individuals could identify themselves as one or more races and also choose to identify themselves as Hispanic. The HARS system did not switch to this method of identification until February 2003. Therefore, the number of cases for Hispanics may be inaccurate. We will, however, continue to strive to improve our ability to more accurately depict the HIV disease burden among our Hispanic population.

- Reports of the geographic location of HIV Disease or STD cases are based on the patient's residence at the time of diagnosis, which may or may not correspond to his/her residence at the time of initial infection, or to his/her current residence.

- The term "Outstate Missouri" refers to all of Missouri outside St. Louis City, St. Louis County, and Kansas City.

- Persons living in Federal correctional facilities located in Missouri at the time of their diagnosis as an HIV or AIDS case are not included in the data presented in these profiles. These individuals were generally not residents of Missouri prior to their incarceration, and to include them in the analysis of the epidemic in the state would result in a distorted epidemiologic picture.

- Persons living in Missouri correctional facilities (state, county, and local facilities) at the time of their HIV/AIDS diagnosis are included in the statewide data, since most of these individuals were probably Missouri residents prior to their incarceration. However, persons living in Missouri correctional facilities are not included in the HIV/AIDS data for specific geographic regions (e.g., St. Louis City, Kansas City, the HIV Regions). This is based on the fact that these individuals, especially those in the state prison system, are often incarcerated in another location from where they resided (and were likely infected) prior to their imprisonment. If they were included among the cases from the area where they were imprisoned at the time of diagnosis it would distort the picture of the epidemic in that area.

- The data in this profiles do not include cases of HIV infection reported or diagnosed in persons anonymously tested at the state's four anonymous testing sites in St. Louis City, Kansas City, Springfield, and Columbia.
- It may be impossible to make meaningful statements concerning trends in regions with low numbers of HIV or AIDS cases. In general, examining all text and appropriate charts, tables, and graphs, including total numbers of cases and case rates, is crucial to successfully interpreting the profiles.

- In the St. Louis and Kansas City regional profiles, AIDS data from adjoining areas of Illinois and Kansas, respectively, are included to provide a more comprehensive description of the impact of the epidemic in the state's two largest metropolitan statistical areas (MSAs).

- In January 1993, the AIDS case definition was broadened to include individuals with HIV infection who have a CD4+ count less than 200 cells/mm^3 or a CD4+ percentage less than 14%, as well as HIV-infected persons with one of three additional conditions (pulmonary tuberculosis, invasive cervical cancer, or recurrent pneumonia). These changes in the case definition primarily account for the dramatic, one time increase in the number of AIDS cases reported during 1993.

- The document has a section titled "Behavioral Studies", which includes results from selected questions contained in the 2002 Behavioral Risk Factor Surveillance System (BRFSS) survey, the 2003 Youth Risk Behavior Survey (YRBS), and the 2000 School Health Education Profiles (SHEP). The BRFSS data summarize HIV/AIDS-related knowledge and attitudes, and HIV testing history of participants 18 to 64 years of age who are representative of the general population of Missouri. The YRBS data summarize the responses of Missouri public high school students to questions about sexual behaviors. The SHEP is a survey designed to monitor the status of health education in public schools, including education to prevent HIV infection and other important health problems, at the middle, junior, and senior high school levels.

- The ***2003 Epidemiologic Profiles of HIV Disease and STDs in Missouri***, along with profiles from previous years, is available on the Missouri Department of Health and Senior Services (DHSS) web site at http://www.dhss.mo.gov/ehcdp/HIVstatsheet.html.

ORGANIZATION OF THE PROFILE

The epidemiological profile is organized into two main sections, within which the five key questions are addressed:

Section 1: Core Epidemiological Questions

This section of the report deals with the understanding of the characteristics of the general population of the state of Missouri, the distribution of HIV Disease and STDs in the state, and a description of the population at risk for HIV and STD infection. This section is organized around three key questions:

Question 1: What are the Sociodemographic Characteristics of the General Population in Missouri? Describes briefly the overall demographic and socioeconomic characteristics of the general population of Missouri.

Question 2: What is the Scope of the HIV/AIDS Epidemic in Missouri? Describes the impact of the HIV/AIDS epidemic among the population of Missouri.

Question 3: What are the Indicators of HIV/AIDS Infection Risk in Missouri? Provides an analysis of the high-risk populations. Both the direct and indirect measures of risk behaviors associated with HIV transmission and the indicators of high-risk behaviors are described in this section.

Section 2: Ryan White HIV/AIDS Care Act Special Questions and Considerations

This section focuses on the questions that pertain to Health Resources and Services Administration (HRSA) HIV/AIDS care planning groups. It describes access to, utilization of, and standard of care among persons in Missouri who are HIV infected. It is organized around the two key questions:

Question 1: What are the HIV Service Utilization Patterns of Individuals with HIV Disease in Missouri? Characterizes the patterns in the use of services by the population living with HIV/AIDS in Missouri.

Question 2: What are the Number and Characteristics of the Individuals who Know They are HIV positive but who are not in Care? Assesses the unmet need of persons who know they are HIV positive, but are not in care. Describes their service needs and perception of care.

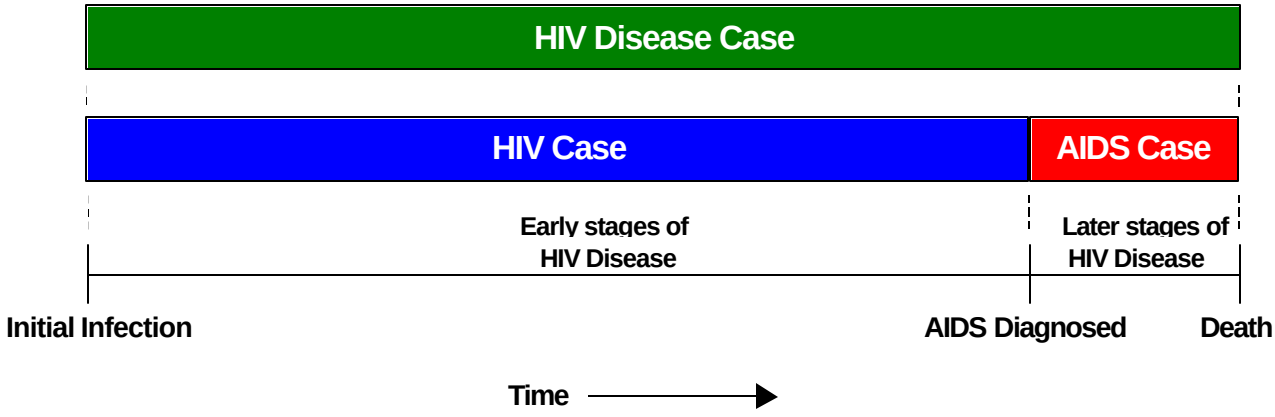
Executive Summary and Analysis of HIV Disease and Sexually Transmitted Diseases in Missouri

HIV Disease in Missouri - 2003
General Summary and Comments

HIV Disease Cases, HIV Cases, and AIDS Cases

From the time a person is infected with human immunodeficiency virus (HIV) until death, he/she has **HIV Disease**. All persons with HIV Disease can be subclassified as either an **AIDS case** (if they are in the later stages of the disease process and have met the case definition for AIDS) or an **HIV case** (if they are in the earlier stages of the disease process and have not met the AIDS case definition). This is illustrated in the following figure.

Relationship of HIV Disease Cases, HIV Cases, and AIDS Cases



To understand the epidemiology of HIV Disease in Missouri, it is necessary to examine not only HIV Disease cases, but also the subcategories of AIDS cases and HIV cases. The patterns of occurrence of AIDS cases (and deaths) are the result not only of past trends in HIV infections, but also access to, utilization of, and the effectiveness of available treatments. In recent years, with the advent of highly active antiretroviral therapy (HAART), treatment-related issues have become very important factors in determining numbers of new AIDS cases (and deaths), and trends in AIDS cases can no longer be seen as reflecting trends in new HIV infections. HIV cases, which generally represent persons more recently infected, can potentially provide information regarding current HIV infection trends. HIV cases can also provide information on which subpopulations are presently at increased risk for acquiring HIV infection, and toward which prevention efforts should be targeted.

Magnitude of the Problem and General Trends

Since 1982, 14,840* HIV-infected Missouri residents (i.e., persons with HIV Disease) have been diagnosed and reported to the Missouri Department of Health and Senior Services. Of these 14,840 HIV Disease cases, 9,902* (66.7%) are subcategorized as AIDS cases, and the remaining 4,938* (33.3%) are subcategorized as HIV cases.

The annual number of HIV Disease cases (i.e., diagnosed and initially reported for the first time to public health officials) had decreased each year from 1990 through 2000. However, the 578 HIV Disease cases diagnosed in Missouri residents in 2001 represented a 7.4% increase from the 538 cases diagnosed in 2000 and the 580 new HIV Disease Cases diagnosed in 2002 represented a 0.3% increase from the 578 cases diagnosed in the previous year. The number of cases diagnosed in 2003 (510) decreased 12.1% from 2002.

The 385* HIV cases diagnosed in Missouri residents in 2003 represented a slight increase (1.9%) over the 378 cases diagnosed in 2002. This increase continued an upward trend that resumed after a decrease in the number of cases diagnosed in 1999. The 125* AIDS cases diagnosed in Missouri residents in 2003 represented a 38.1% decrease from the 202 cases diagnosed in 2002. The number of diagnosed HIV cases in Missouri increased dramatically from 1986 to 1988 and have increased gradually since then, while the number of diagnosed AIDS cases peaked in 1989, and have been declining since then. The numbers of cases for HIV and AIDS were approximately the same for the first time in the history of the epidemic from 1997 to 1999, with the number of HIV cases finally surpassing the number of AIDS cases in 2000. This divergent trend has continued since then. The total number of HIV Disease cases has, on the average, continued to decrease in 1989, except for a few years with minor upward moves (see Figure 15, "Reported HIV Disease Cases by Current Status and Year of Diagnosis, Missouri 1982-2003," in the Missouri State Summary section of this document).

Of the 14,840 diagnosed HIV Disease cases, 9,495 (64%) are living, and 5,345 (36%) have died. The majority (5,147, or 96.3%) of these deaths have been in persons subcategorized as AIDS cases. The 5,147 AIDS cases who have died made up 52% of all diagnosed cases of AIDS in the state. During 2003, 124 HIV-related deaths in Missouri residents were reported on death certificates, an increase of 0.8% from the 123 HIV-related deaths reported in 2002.

Not all HIV-infected persons have been diagnosed nor are they aware of their infection status. It is estimated that the actual number of individuals infected with HIV (i.e., persons with HIV Disease) who are presently living in Missouri is in the approximate range of 9,500 to 13,500 persons. The Centers for Disease Control and Prevention (CDC) has stated that, nationwide, approximately 30% of HIV-infected persons are <u>not</u> aware that they are infected[1] (although a more recent CDC report has indicated that among young gay and bisexual men infected with HIV, the percentage who do not know their infection status may be much higher[21]). An essential component of HIV prevention is to encourage and assist persons at risk for HIV infection to be tested so that, if infected, they can optimally benefit from available treatments, and be assisted in making behavioral changes to eliminate or reduce the risk of transmission to others.

Improved antiretroviral therapies (introduced since the mid-nineties) have slowed the progress of HIV disease in many infected persons, an achievement especially reflected in the substantial decrease in diagnosed AIDS cases in Missouri from 1996 to 1997, and in HIV Disease deaths from 1995 to 1997. The annual number of HIV Disease deaths has remained almost the same over the past six years (See Figure 4, "HIV Disease Deaths by Race/Ethnicity and Year of Death, Missouri 1993-2003," in the Missouri State Summary section of this document). This likely reflects, at least in part, the limitations associated with current treatment regimens. Other factors that could potentially play a role here include delayed test seeking among certain populations, and limited access to or use of health care services.[2]

*Numbers are reported by date of diagnosis. Numbers for 2003 are adjusted for delayed reporting.

There is an obvious need for continued emphasis on prevention of new infections, and for trying to ensure that all infected persons can access needed care services. Everyone needs to clearly understand that "despite medical advances, HIV infection remains a serious, usually fatal disease that requires complex, costly, and difficult treatment regimens that do not work for everyone. As better treatment options are developed, we must not lose sight of the fact that preventing HIV infection in the first place precludes the need for people to undergo these difficult and expensive therapies."[3]

The ability of improved treatments to extend the life-span of AIDS patients is reflected in the consistent increase in the number of persons living with AIDS in recent years, even though the annual numbers of new AIDS cases have been decreasing. At the end of 2003, 4,755 persons who were Missouri residents at the time of diagnosis were living with AIDS; the corresponding numbers for 2002, 2001, 2000, 1999, 1998, 1997, and 1996 were 4,455, 4,262, 4,049, 3,784, 3,496, 3,235, and 3,055, respectively.

Where

Of the 4,938 diagnosed HIV cases: 1,480 (30%) were from St. Louis City, 1,223 (24.8%) were from Outstate Missouri*, 1,199 (24.3%) were from Kansas City, and 683 (13.8%) were from St. Louis County.

Of the 9,905 diagnosed AIDS cases: 2,844 (28.7%) were from St. Louis City, 2,709 (27.3%) were from Kansas City, 2,573 (26%) were from Outstate Missouri, and 1,518 (15.3%) were from St. Louis County.

Cases of HIV Disease disproportionately occurred in the state's two major metropolitan areas (St. Louis and Kansas City). The highest rates of both HIV and AIDS cases, as well as the largest numbers of cases, were found in these two areas. St. Louis City consistently has had the highest case rates, followed by Kansas City, St. Louis County, and Outstate Missouri*.

Of total diagnosed HIV cases, 68.1% were from St. Louis City, St. Louis County, or Kansas City (which together comprise 32.3% of the state's population). However, 1,223 cases of HIV have been diagnosed in the Outstate Missouri area. The number of HIV cases per 100,000 population (case rate) was the highest in St. Louis City, followed by Kansas City, and St. Louis County. Of the total diagnosed AIDS cases, 71.4% were from St. Louis City, St. Louis County, or Kansas City. Yet, 2,573 AIDS cases have been diagnosed in the Outstate Missouri area. Again, the highest case rate was in St. Louis City, followed by Kansas City and then St. Louis County.

Within St. Louis City, St. Louis County and Kansas City, both HIV Disease cases and cases of bacterial STDs generally tend to occur in the same specific areas.** It is within these areas that the need for prevention and care services are the greatest.

Who

Of the 385 HIV cases diagnosed in 2003: 300 (77.9%) were in males and 85 (22.1%) were in females. The rate per 100,000 population for males (11.0) was 3.7 times higher than the case rate for females (3.0).

Of the 125 AIDS cases initially diagnosed in 2003: 103 (82.4%) were in males and 22 (17.6%) were in females. The rate per 100,000 population for males (3.8) was 4.8 times higher than the case rate for females (0.8).

Of the 162 HIV cases that seroconverted to AIDS in 2003: 132 (81.5%) were in males and 30 (18.5%) were in females. The rate per 100,000 population for males (4.9) was 4.9 times higher than the case rate for females (1.0).

*The term "Outstate Missouri" refers to all of the areas of the state outside St. Louis City, St. Louis County, and Kansas City.
**See the zip code maps in the St. Louis and Kansas City HIV Regions sections of the *Epidemiologic Profiles*.

HIV Disease Epi Profiles Summary: Missouri

Of the 385 HIV cases diagnosed in 2003: 161 (41.8%) were in Whites, 213 (55.3%) were in Blacks, three (0.8%) were in Hispanics, 1 (0.3%) was an Asian/Pacific Islander, and one (0.3%) was an American Indian. (Race/ethnicity was unknown for six cases.) The rate per 100,000 population for Blacks (33.8) was 9.9 times higher than the case rate for Whites (3.4).

Of the 125 AIDS cases initially diagnosed in 2003: 63 (50.4%) were in Whites, 59 (47.2%) were in Blacks, 2 (1.6%) were in Hispanics, and there were no new cases Asian/Pacific Islanders or American Indians. (Race/ethnicity was unknown for 1 case.) The rate per 100,000 population for Blacks (9.4) was 7.2 times higher than the case rate for Whites (1.3).

Of the 162 HIV cases that seroconverted to AIDS in 2003: 64 (39.5%) were in Whites, 92 (56.8%) were in Blacks, 4 (2.5%) were in Hispanics, 1 (0.6%) was an Asian/Pacific Islander, and 1 (0.6%) was an American Indian. The rate per 100,000 population for Blacks (14.6) was 11.2 times higher than the case rate for Whites (1.3).

In 2003, Blacks made up 55.3% of newly diagnosed HIV cases, 47.2% of newly diagnosed AIDS cases, and 56.8% of the HIV cases that seroconverted to AIDS. Given that Blacks make up only about 11.2% of the state's population, this clearly indicates their very disproportionate representation among HIV-infected persons. The case rate for HIV cases diagnosed in 2003 in Blacks (33.8) was 9.9 times higher than the cases rate in Whites (3.4). The case rate for newly diagnosed AIDS cases and for HIV cases that seroconverted to AIDS in 2003 in Blacks (9.4 and 14.6 respectively) was 7.2 and 11.2 times higher than the case rate in Whites (1.3 in each category). Blacks were also highly disproportionately represented among reported cases of gonorrhea, chlamydia, and syphilis (see the discussion of these diseases later in the summary).

For Hispanics, the total numbers of cases diagnosed in 2003 for HIV and AIDS in Missouri was small. There are some reasons for concern that HIV Disease might be a more significant problem for Hispanics in Missouri than current numbers seem to indicate. First, it is possible that among diagnosed HIV and AIDS cases, because of incorrect information provided on the case report forms, a higher proportion may actually be of Hispanic ethnicity than is indicated by the current numbers. Second, the Hispanic population is increasing rapidly in Missouri. According to 2000 census data, Missouri's Hispanic population grew by 92.2% during the period from 1990 to 2000 (from 61,698 in 1990 to 118,592 in 2000); in contrast, Missouri's total population grew by only 9.3% during this time.[4] Another issue regarding persons identified as Hispanic, is that these individuals actually consist of a diverse mixture of ethnic groups and cultures. This indicates a need for specifically targeted prevention efforts.[5]

In 2003, no AIDS cases and only 1 HIV case each were diagnosed in Asians and in American Indians within Missouri. Numbers of diagnosed HIV cases in Asians and American Indians have been very small; each of these two groups comprised less than 0.5% of newly diagnosed HIV cases.

It should be emphasized that race/ethnicity in itself is not a risk factor for HIV infection; however, among many racial/ethnic minority populations, social, economic and cultural factors are associated with high rates of HIV risk behavior. These factors also may be barriers to receiving HIV prevention information or accessing HIV testing, diagnosis, and treatment.[6]

In 2003, case rates for new HIV infections in Whites were the highest among males 30 to 39 years of age, but in Blacks the case rates were highest in the 20 to 29 year old age group. Although relatively small in number, infections were also occurring in teenagers among Blacks in Missouri (see Figure 8, "HIV Incidence Rates for Selected Race/Ethnicity/Gender Groups, by Age Group, Missouri 2003," in the Missouri State Summary section of this document). CDC estimates that, nationwide, about half of all new HIV infections are in young people under 25 years of age.[1]

In 2003, two infants born to HIV-infected mothers were also infected. The number of perinatal HIV cases dropped from four in 1996 to 2 in 2003, and the number of perinatal AIDS cases dropped from three in 1996 to zero in 2003, while the annual number of live births in Missouri remained fairly constant. This difference reflected the use, starting in mid-to late-1994, of zidovudine (AZT, ZDV) treatment to reduce the risk of perinatal HIV transmission. It remains vitally important for all pregnant women to receive adequate prenatal care, starting early in their pregnancy, and to know their HIV status so that, if infected, they can take

advantage of antiretroviral treatment to significantly reduce the risk of HIV transmission to their child, and also receive optimal treatment for their own disease. Prenatal providers should encourage all pregnant women to undergo voluntary HIV testing. Such testing should be viewed as a routine part of prenatal care for all women who are pregnant.[7]

Major Exposure Categories

There are currently four major exposure categories into which almost all adults/adolescents recently infected with HIV can be placed: 1) men who have sex with men (MSM); 2) heterosexual contacts; 3) injecting drug users (IDU); and 4) men who have sex with men and inject drugs (MSM/IDU).

Men Who Have Sex With Men (MSM)

It is estimated that 3,003 (62.2%) of the total reported 4,826 adult/adolescent HIV cases, and 6,885 (70.2%) of the total reported 9,813 adult/adolescent AIDS cases in Missouri have been in MSM. It is also estimated that approximately 277 (58.9%) of the 470 new adult/adolescent HIV cases and 247 (61.3%) of the 403 new adult/adolescent AIDS cases reported in 2003 in Missouri were in MSM.

HIV infection is a problem among both White and Black MSM; more cases have been diagnosed from White MSM, but Black MSM are likely experiencing higher rates of infection. In 2003, White men comprised 55.8%, Black men 39.6%, and Hispanic men 1.9% of the newly diagnosed HIV cases in MSM in Missouri. Of newly diagnosed AIDS cases in MSM, 59.3% were in White men, 39% were in Black men, and none were in Hispanic men.

It is estimated that most living persons who contracted HIV by MSM mode of transmission became infected while in their twenties or thirties, but infections were also occurring in teenagers. In general, Black MSM in Missouri may be infected at somewhat younger ages compared to White MSM. The data for 2003 indicated that 44.8% of living Black MSM reported they were in their twenties, while 42.6% of living White MSM reported they were in their thirties when they contracted the disease. CDC data from other states suggested that, in general, racial/ethnic minority MSM may become infected at younger ages compared with White MSM.[8]

The majority of HIV-infected MSM are from either the St. Louis or Kansas City metropolitan areas. Of the total living HIV cases (2003) in MSM, 74.6% were in men living in St. Louis City, St. Louis County, or Kansas City at the time of diagnosis. In addition, 68.2% of White MSM HIV cases, 85.5% of Black MSM HIV cases, and 83.8% of Hispanic MSM HIV cases were from one of these three locations.

It is estimated that approximately 277 new HIV cases and 247 new AIDS cases were reported in MSM in 2003. The estimates for 2002 were 193 new HIV cases and 220 new AIDS cases, respectively, reflecting an increase in HIV and AIDS incidence among MSM from 2002 to 2003. It should be noted that CDC has been expressing concern that the risk for HIV transmission among MSM may be increasing, at least in some parts of the country. A recent analysis of data by CDC for 1999-2002 data collected in the 29 states that conduct name-based reporting, indicated that during this period "HIV diagnoses increased among men, particularly MSM, and also among non-Hispanic whites and Hispanics."[9] Evidence for this includes the fact that increased rates of syphilis, gonorrhea, and chlamydial infection, largely among HIV-infected MSM, have been recently reported in many cities in the U.S. Preliminary data also indicate higher frequencies of unsafe sex, and suggest that the incidence of HIV infection may be rising among MSM in some cities. The underlying behavioral changes likely are related to effects of improved HIV/AIDS therapy on quality of life and survival, "safer sex burnout," and in some cities, adverse trends in substance abuse.[10]

Heterosexual Contacts

It is estimated that 1,097 (22.7%) of the total reported 4,826 adult/adolescent HIV cases, and 1,067 (10.9%) of the total reported 9,813 adult/adolescent AIDS cases in Missouri are in heterosexual contacts. It is also estimated that approximately 159 (33.8%) of the 470 new adult/adolescent HIV cases and 104 (25.8%) of the 403 new adult/adolescent AIDS cases diagnosed in 2003 were in heterosexual contacts.

The majority of diagnosed heterosexual contact HIV and AIDS cases were in women. The fact that there are fewer male cases may, in part, be related to two factors. First, some heterosexual contact female cases were infected by bisexual men. However, if these bisexual men were diagnosed and reported, they would, according to the current classification scheme, be categorized as MSM (not heterosexual contact) cases. Second, adolescent and young adult men are less likely to be seen by a medical provider than are females of the same age. Consequently, young females may have more opportunity to receive HIV testing and thus be more likely, if infected, to be diagnosed and reported than are young men.

Black females were disproportionately affected, making up 50.9% of diagnosed heterosexual contact HIV cases in 2003. White females made up 22.8% in 2003. Heterosexual contact was the predominant way that women in Missouri were infected with HIV. In 2003, 73.7% were infected through this mode of transmission.

It is estimated that the largest proportion of female heterosexual contact cases were initially infected while in their twenties. However, teenagers (especially females) were also being infected with HIV through heterosexual transmission (13.8% of Black female heterosexual contact HIV cases alive in 2003, and 9.7% of White female heterosexual contact HIV cases alive in 2003, were initially diagnosed while in their teens; in addition, it is highly likely that some persons diagnosed as HIV cases in their twenties were initially infected while in their teens).

The majority of HIV-infected heterosexual contacts were from either the St. Louis or Kansas City metropolitan areas. Of total diagnosed HIV cases in heterosexual contacts, 64.4% were in persons living, at the time of diagnosis, in either St. Louis City, St. Louis County, or Kansas City (which together comprise 32.3% of the state's population). In addition, 37.6% of White heterosexual contact HIV cases, 79.4% of Black heterosexual contact cases, and 62.5% of Hispanic heterosexual contact cases were from one of these three locations.

It is estimated that approximately 159 new HIV cases were reported in heterosexual contacts in 2003. Since 1990, and in contrast to trends in the other major exposure categories, the annual number and proportion of diagnosed HIV cases in heterosexual contacts has generally been increasing. However, this general upward trend in diagnosed cases was only seen in Blacks, whereas in Whites the annual number of diagnosed cases essentially remained stable.

Given the increasing number of heterosexual contact HIV cases being diagnosed, and the known presence of high-risk sexual behaviors among many heterosexuals, prevention efforts directed to at-risk subpopulations of heterosexuals are vital. A recent study by the CDC analyzed data for 1999 through 2002 from the 29 states that have met CDC's standards for name-based reporting. This analysis determined that "heterosexually acquired HIV infections represented 35% of all new HIV cases; 64% of heterosexually acquired HIV infections occurred in females, and 74% occur in non-Hispanic blacks." [11]

Among the subpopulations of concern are teenagers. Results from the Missouri Youth Risk Behavior Survey (YRBS) indicated that many teenagers are engaging in sexual behaviors that place them at risk for sexually transmitted infections, including infection with HIV.[12] Such risky behaviors are reflected in the fact that teenagers make up a substantial proportion of reported cases of gonorrhea and chlamydia. Among gonorrhea cases reported in Missouri in 2003, persons 10-19 years of age made up 39.8% of Black female cases, 35.5% of White female cases, 18.6% of Black male cases, and 12.5% of White male cases.

Behavioral survey (HITS II) results from STD clinic patients indicated the continuing presence of behaviors associated with HIV and STD transmission, such as multiple sexual partners, inconsistent condom use and drug use. The findings also indicated that some of these individuals might be more careless than before regarding sexual (or drug-using) behaviors because of their knowledge of more effective HIV treatment regimens. Persons who receive services in STD clinics, as well as other persons with a recent history of an STD, comprise populations in continuing need of effective prevention services.[13]

Prevention activities must additionally address bisexual men with or at risk for HIV infection, since these individuals form a bridge between infected or high-risk male homosexual and heterosexual populations. In this regard, it is significant that information obtained through interviews indicates that at least 24% of reported MSM HIV Disease cases state they have also had sex with a female(s), and among reported cases in MSM/

IDUs, the figure was at least 44%. This latter percentage is consistent with the results of a CDC-supported study that interviewed HIV-infected MSM/IDUs in 12 states (not including Missouri) and found that 43% reported having had sex with women in the preceding five years.[14]

Injecting Drug Users (IDUs)

It is estimated that 422 (8.7%) of the 4,826 reported adult/adolescent HIV cases and 762 (7.8%) of the 9,813 diagnosed adult/adolescent AIDS cases in Missouri were in IDUs. It is also estimated that approximately 28 (6%) of the 470 new adult/adolescent HIV cases and 29 (7.2%) of the 403 new adult/adolescent AIDS cases diagnosed in 2003 were in IDUs.

Sharing of syringes and other drug paraphernalia among persons who inject drugs has been a less common means of transmitting HIV in Missouri in comparison to other states. However, IDUs made up an estimated 8.7% of Missouri's total diagnosed adult/adolescent HIV cases and an estimated additional 5.5% of HIV cases were in MSM who also reported injecting drug use (MSM/IDU]. Also, IDUs made up an estimated 7.8% of Missouri's total AIDS cases and an estimated additional 8.6% of AIDS cases were in MSM/IDU.

It is estimated that approximately 28 new HIV cases and 29 new AIDS cases were diagnosed in IDUs in 2003. The annual number of diagnosed HIV cases in IDUs generally decreased during the period between 1990-1999, rose slightly between 2000-2001, and decreased in 2002. In 2003, the number of HIV cases was up from 2002 and the number of AIDS cases was down.

Of newly diagnosed HIV cases in IDUs for 2003, 58.8% were in Blacks and 41.2% were in Whites. Among living cases for 2003, 50% were in Whites and 46.4% were in Blacks.

The largest proportion of HIV-infected IDUs were in the 30 to 39 age group (45.9%) when they acquired their infection; a relatively small proportion (4.1%) acquired their infection while teenagers.

Of living HIV cases in IDUs, 48.1% were in persons living in St. Louis City, St. Louis County, or Kansas City at the time of diagnosis. One out of every five (20.7%) IDU HIV cases were diagnosed while in correctional facilities. By contrast, 5.2% of heterosexual contacts and 5% of MSM HIV cases were diagnosed while in a correctional facility setting.

Behavioral survey (HITS II) findings indicated the presence of behaviors associated with HIV transmission, such as multiple sexual partners, inconsistent condom use, and non-injectable drug use in the populations of Missouri IDUs surveyed.[13] Some HIV-infected IDUs likely became infected through sexual contact rather than sharing of syringes/drug paraphernalia. The presence of such risky behaviors, coupled with the fact that, according to a recent estimate, there are almost 12,000 IDUs currently living in Missouri[15], points to the ongoing need for prevention efforts directed to both drug-using and sexual behaviors in IDU populations.

Men Who Have Sex With Men and Inject Drugs (MSM/IDU)

It is estimated that 264 (5.5%) of the 4,826 diagnosed adult/adolescent HIV cases, and 844 (8.6%) of the 9,813 diagnosed adult/adolescent AIDS cases in Missouri were MSM/IDUs. It is also estimated that approximately 6 (1.3%) of the 470 new adult/adolescent HIV cases and 19 (4.7%) of the 403 new adult/adolescent AIDS cases in 2003 were in MSM/IDUs.

It is estimated that approximately six new HIV cases and 19 new AIDS cases were reported in MSM/IDUs in 2003. The estimated number of reported HIV and AIDS cases in MSM/IDUs in 2002 was 14 and 18, respectively.

Also, it is estimated that most MSM/IDUs who become infected with HIV likely do so while in their twenties or thirties.

HIV infection is a problem among both White and Black MSM/IDUs; more cases have been diagnosed from White MSM/IDUs, but Black MSM/IDUs are likely experiencing higher rates of infection. Of living HIV

cases in MSM/IDUs (2003), 62.5% were in White men, 33.3% were in Black men, and 2.5% were in Hispanic men.

The majority of HIV-infected MSM/IDUs were from either the St. Louis or Kansas City metropolitan areas. Of total living HIV cases in MSM/IDUs (2003), 55.4% were in men living in St. Louis City, St. Louis County, or Kansas City at the time of diagnosis; in addition, 49.3% of White MSM/IDU HIV cases and 65% of Black MSM/IDU cases were from one of these three locations.

A recent CDC report on MSM/IDUs pointed out that because these individuals have multiple risks for HIV infection, they are particularly vulnerable to infection and can transmit HIV across multiple populations, including MSM, IDU, and heterosexual women. Prevention strategies must provide the information, skills, and support necessary to reduce both sexual and drug-related risk behaviors among MSM/IDUs, and include access to drug treatment and case management.[14]

Additional Comments

Substance Abuse, Including Non-Injecting Drug Use

Studies have found that substance abuse is fueling the sexual spread of HIV in the U.S., especially in minority communities with high rates of STDs.[16] Sharing of syringes and other drug paraphernalia is a well-known route of HIV transmission, yet injection drug use contributes to the HIV epidemic's spread far beyond the circle of those who inject. People who have sex with an IDU also are at risk for infection through the sexual transmission of HIV. Children born to mothers who contracted HIV through sharing needles or having sex with an IDU may become infected as well. Noninjection drugs (such as "crack" cocaine or methamphetamines) also contribute to the spread of the epidemic when users trade sex for drugs or money, or when they engage in risky sexual behaviors that they might not engage in when sober. One CDC study of more than 2,000 young adults in three inner-city neighborhoods found that crack smokers were three times more likely to be infected with HIV than non-smokers. Effective substance abuse treatment that helps people stop using drugs not only eliminates the risk of HIV transmission from sharing contaminated syringes, but also, for many, reduces the risk of engaging in risky behaviors that might result in sexual transmission.[17]

Other Sexually Transmitted Diseases in Missouri - 2003 General Summary and Comments

Sexually transmitted diseases [STDs] such as gonorrhea, chlamydia, and syphilis are important public health problems in Missouri. Each of these diseases has the potential to cause very serious long-term consequences in infected persons. In addition, the presence of any of these diseases makes HIV transmission from an HIV-infected person to his/her non-HIV-infected sexual partner two to five times more likely to occur. More specifically, biological factors make people who are infected with an STD more likely to become infected with HIV if exposed sexually; and HIV-infected people with an STD are more likely to transmit HIV to their sex partners. It follows that an essential component of HIV prevention consists of efforts to decrease the occurrence of STDs.[18]

Gonorrhea

Large numbers of Missourians are infected with *Neisseria gonorrhoeae* each year; 8,792 gonorrhea cases were reported in the state in 2003, and many additional persons were infected but not diagnosed and reported. Blacks continue to be very disproportionately affected. In 2000, Blacks represented 11.2% of the general population in Missouri. In 2003, 5,965 (67.8%) gonorrhea cases were reported in Blacks compared to 1,271 (14.5%) cases in Whites, and the rate of reported Black cases (947.7) was 35.4 times higher than the rate for Whites (26.8). For both Blacks and Whites, the largest numbers of cases were reported from persons in their late teens and early twenties. Among females, late teens (15-19) and early twenties (20-

24) were the age groups with the most reported cases, whereas among males, the largest numbers of cases were in the 20-24 year old age group.

In 2003, the largest numbers of gonorrhea cases were reported from St. Louis City, followed by Kansas City, Outstate Missouri, and St. Louis County. Cases were reported from 95 (83.3%) of Missouri's 114 counties (and from St. Louis City). The annual number of reported gonorrhea cases in Missouri decreased each year from 1989 to 1997; since that time, no sustained upward or downward trends have been seen. The 8,792 cases reported in 2003 represented a 1.8% decrease from the 8,952 cases reported the preceding year. In 2003*, Missouri ranked 9th among the 50 states in rates of reported gonorrhea cases; in addition, St. Louis ranked first and Kansas City ranked seventh among U.S. cities of >200,000 population in reported rates of gonorrhea cases.

Comment:

Most gonococcal infections among men produce symptoms that cause them to seek curative treatment soon enough to prevent serious sequelae, but this may not be soon enough to prevent transmission to others. Among women, many infections with *N. gonorrhoeae* do not produce recognizable symptoms until complications (e.g., pelvic inflammatory disease, or PID) have occurred. If not adequately treated, 10% to 40% of women infected with gonorrhea develop PID. Among women with PID, tubal scarring will cause involuntary infertility in 20%, ectopic pregnancy in 9%, and chronic pelvic pain in 18%. Both symptomatic and asymptomatic cases of PID can result in tubal scarring that can lead to these other complications.[10,19]

In Missouri, as well as nationwide, the largest burden of infection is in Blacks, among teenagers and young adults, and in urban areas. However, gonococcal infections, although on a smaller scale, are also occurring in other groups of individuals and in non-urban areas. The rate for gonorrhea cases reported in Missouri in 2003, which was 157.1 cases per 100,000 persons, is 8.3 times higher than the Healthy People 2010 (HP2010) national objective of 19 cases per 100,000 persons.[20]

The fact that large numbers of new infections are taking place each year in Missouri is an ongoing cause for concern, especially because of the potential sequelae (particularly in women) that can result, and because the presence of an inflammatory STD such as gonorrhea can facilitate the transmission of HIV. In addition, the occurrence of large numbers of gonococcal infections reflects the substantial prevalence of unsafe sexual practices, which can cause transmission of other STDs and HIV.

Prevention of new gonococcal infections should be an important priority, and can include efforts to provide education and promote behavior change among high-risk individuals and groups. In addition, medical providers should be encouraged and assisted to properly screen, diagnose, and treat gonorrhea in their patients.

New guidelines[10] for managing patients with gonorrhea were published by CDC in May 2002, and are available at http://www.cdc.gov/std/treatment/default.htm. Because gonococcal infections among women often are asymptomatic, an important component of gonorrhea control continues to be the screening of women at high risk for STDs.[10]

Chlamydia

Large numbers of Missourians are infected with *Chlamydia trachomatis* each year; 18,570 chlamydia cases were reported in the state in 2003, and it is estimated that many additional persons were infected but not diagnosed and reported. Because of incomplete information, the race of about 25% of reported cases is not known. The rate for cases reported in 2003 in Blacks (1,313.3 cases per 100,000) was 10.6 times higher than the rate for cases in Whites (123.9). For all racial groups, the largest numbers of cases were reported

*2003 preliminary rankings released by CDC April 2004. Final 2003 rankings will be available October 2004.

from persons in their late teens and early twenties; among both White and Black females, the late teens was the age group with the most reported cases.

In 2003, the largest numbers (43.7%) of chlamydia cases were reported from Outstate Missouri, followed by Kansas City (20%), St. Louis City (18.9%), and St. Louis County (17.4%). However, the highest case rates were in St. Louis City (1,005.8 cases per 100,000), followed by Kansas City (842.7), St. Louis County (318.3), and Outstate Missouri (214.1). Only two Missouri counties did not report a chlamydia case in 2003. The annual number of reported chlamydia cases increased dramatically from 1985 through 1990, reflecting a marked increase in chlamydia testing and reporting during this period. Since 1990, the number of cases reported each year has, in general, continued to increase although at a much slower rate. The 16,181 cases reported in 2002 represented a 16% increase from the 13,949 cases reported the preceding year. The 18,570 cases reported in 2003 represented another increase—14.8%, over 2002.

In 2003*, Missouri ranked 14th among the 50 states in rates of reported chlamydia cases. St. Louis City ranked fourth and Kansas City ranked eighth among U.S. cities of >200,000 population in reported rates of chlamydia cases.

Comment:

Because chlamydial infection frequently occurs without symptoms, the disease is often not diagnosed, or in some instances, not diagnosed until complications develop. Consequently, screening of persons at increased risk for *C. trachomatis* infection, such as young, sexually active women, is very important in finding infected persons so that they can be treated, and also so that the extent of the infection can be limited. The numbers of chlamydia cases reported, and their distribution, significantly depend on where and in what populations screening is taking place. In this regard, the Missouri Infertility Prevention Project (MIPP) has been important in making chlamydia screening available to large numbers of young women throughout the state. This results in many additional infected individuals being detected, thus providing a more representative picture of chlamydia in Missouri. However, many women who are at risk for this infection are still not being tested, reflecting the lack of awareness among some health care providers and the limited resources available to support screening. Chlamydia screening and reporting are likely to expand further in response to the Health Plan Employer Data and Information Set (HEDIS) measure for chlamydia screening of sexually active women 15 through 25 years of age who are provided medical care through managed care organizations.[21]

In 2002, the CDC reported that, in parts of the United States where large-scale chlamydia screening programs have been instituted, prevalence of the disease has declined substantially.[21] There is also evidence that screening and treatment of chlamydial cervical infection can reduce the likelihood of PID. The 2000 STD treatment guidelines from CDC state that "sexually active adolescent women should be screened for chlamydial infection at least annually, even if symptoms are not present. An appropriate sexual risk assessment should always be conducted and may indicate more frequent screening for some women."[10]

Prevention of new chlamydial infections should be an important priority and, besides screening of high risk women, can include efforts to provide education and promote behavior change among high-risk and potentially high-risk groups. In addition, medical providers should be encouraged and assisted to properly screen, diagnose, and treat chlamydia in their patients. The new guidelines[10] for managing patients with chlamydia, published by CDC in May 2002, are available at http://www.cdc.gov/std/treatment/default.htm.

Syphilis

Primary and Secondary Syphilis

The annual number of reported cases of primary and secondary (P&S) syphilis in Missouri has been decreasing since 1993. However, the 61 cases of P&S syphilis reported in 2003 represented a 79.4% increase from the 34 cases reported the preceding year. An additional 46 cases of early latent syphilis (duration of less than one year) were reported during 2003, a 9.8% decrease from the 51 cases reported in 2002.

*2003 preliminary rankings released by CDC April 2004. Final 2003 rankings will be available October 2004.

Blacks comprise 11.2% of the population in Missouri. However, the case rate (4.6 cases per 100,000) for Blacks was 9.2 times higher than the case rate for Whites (0.5). The average age at the time of diagnosis was higher for reported cases of P&S syphilis as compared to reported cases of chlamydia or gonorrhea, and a noticeable proportion of cases were seen in persons greater than 40 years of age. In 2003, both St. Louis City and St. Louis County reported 18 (29.5%) of the 61 reported P&S syphilis cases. Kansas City reported 17 (27.9%) of the cases and the Outstate area reported 8 (13.1%). The highest rates of reported P&S syphilis cases were in St. Louis City (5.2 cases per 100,000) with lower rates in Kansas City (3.9), St. Louis County (1.8), and the Outstate area (0.2). Seven of the state's 114 counties, St. Louis City, and Kansas City reported P&S syphilis cases in 2003.

In 2003*, Missouri ranked 28th among the 50 states in rates of reported P&S syphilis cases. St. Louis City ranked 21st and Kansas City 26th among U.S. cities of >200,000 population in reported rates of P&S cases.

Congenital Syphilis

In 2003, 4 cases of congenital syphilis were reported in Missouri. One case was reported from each of the following areas: St. Louis City, St. Louis County, Kansas City, and Clay County. In 2002, one case was reported in Missouri.

Comment:

The clear majority of syphilis cases continued to occur in the St. Louis area (especially St. Louis City). The largest burden of infection was clearly in Blacks. In contrast to chlamydia and gonorrhea, cases of P&S syphilis are more likely to be seen in persons in their later 30's and older. The numbers of reported cases of P&S syphilis in Missouri were much smaller in comparison to other STDs such as gonorrhea and chlamydia. However, severe disease can result from an untreated syphilis infection and the presence of an ulcerative STD such as syphilis can facilitate the transmission of HIV. Also, significant resources must be devoted to the investigation and follow-up of even a single syphilis case. Therefore, the control and eventual elimination of this infection remains an important priority.

Prevention of new syphilis infections can include efforts to provide education and promote behavior change among high-risk and potentially high-risk groups. In addition, medical providers should be encouraged and assisted to properly diagnose and treat syphilis in their patients. New guidelines[10] for managing patients with syphilis were published by CDC in May 2002, and are available at http://www.cdc.gov/std/treatment/default.htm.

*2003 prelimanary rankings released by CDC April 2004. Final 2003 rankings will be available October 2004.

References

1. CDC. *HIV Prevention Strategic Plan Through 2005*; Jan. 2001. http://www.cdc.gov/nchstp/od/hiv_plan/default.htm

2. CDC. *HIV/AIDS Surveillance Report, 2001; 13(No. 1).* http://www.cdc.gov/hiv/stats/hasr1301.htm

3. CDC. *Need for Sustained HIV Prevention Among Men who Have Sex with Men.* http://www.cdc.gov/hiv/pubs/facts/msm.htm

4. MERIC. Missouri Hispanic Population — 2000 Census. http://www.ecodev.state.mo.us/business/researchandplanning/indicators/population/hispanic2000.shtml

5. CDC. *HIV/AIDS Among Hispanics in the United States*. http://www.cdc.gov/hiv/pubs/facts/hispanic.htm

6. CDC. HIV/AIDS among racial/ethnic minority men who have sex with men — United States, 1989–1998. *MMWR* 2000; 49(1):4-11. http://www.cdc.gov/mmwr//preview/mmwrhtml/mm4901a2.htm

7. CDC. Revised guidelines for HIV counseling, testing, and referral and revised recommendations for HIV screening of pregnant women. *MMWR* 2001;50(No. RR-19). http://www.cdc.gov/mmwr/pdf/rr/rr5019.pdf

8. CDC. HIV/AIDS among racial/ethnic minority men who have sex with men — United States, 1989–1998. *MMWR* 2000; 49(1):4-11. http://www.cdc.gov/mmwr//preview/mmwrhtml/mm4901a2.htm

9. CDC. Increses in HIV diagnoses--29 States, 1999-2002. *MMWR* 2003; 52(47):1145-1148. http://www.cdc.gov/mmwr/PDF/wk/mm5247.pdf

10. CDC. Sexually transmitted diseases treatment guidelines 2002. *MMWR* 2002:51 (No. RR-6). http://www.cdc.gov/std/treatment/default.htm

11. CDC. Heterosexual transmission of HIV--29 States, 1999-2002. *MMWR* 2004; 53(06):125-129. http://www.cdc.gov/mmwr/PDF/wk/mm5306.pdf

12. Missouri Department of Elementary and Secondary Education. *Missouri Youth Risk Behavior Survey, 1995-2003*. (http://www.dese.state.mo.us/divimprove/curriculum/hiveducation/Youth-Risk-Behavior-Survey-1995-2003.pdf). The "Sexual Behavior" portion of the 2002 YRBS report is reprinted in the **Behavioral Studies** section of the *Epidemiologic Profiles*.

13. HIV Testing Survey II (HITS II), conducted by the Saint Louis University School of Public Health. For a more detailed description, see the Missouri Department of Health's *1999 Epidemiologic Profiles of HIV/AIDS and STDs in Missouri*, pages 3-4, 7, 10-11 and 67-8. (http://www.dhss.state.mo.us/HIV_STD/99MainFS.pdf)

14. CDC. HIV/AIDS among men who have sex with men and inject drugs — United States, 1985–1998. *MMWR* 2000: 49(21):465-70. http://www.cdc.gov/mmwr//preview/mmwrhtml/mm4921a2.htm

15. Missouri Department of Mental Health. http://www.dmh.missouri.gov/

16. CDC. *HIV/AIDS Among African Americans*. http://www.cdc.gov/hiv/pubs/facts/afam.htm

17. CDC. *Drug-Associated HIV Transmission Continues in the United States*. http://www.cdc.gov/hiv/pubs/facts/idu.htm

18. CDC. HIV prevention through early detection and treatment of other sexually transmitted diseases — United States. *MMWR* 1998;47(No. RR-12). http://www.cdc.gov/mmwr/preview/mmwrhtml/00054174.htm

19. CDC. *Sexually Transmitted Disease Surveillance, 2002*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, April 2002. http://www.cdc.gov/std/stats/toc2002.htm

20. Healthy People 2010: Sexually Transmitted Diseases. http://web.health.gov/healthypeople/document/pdf/Volume2/25STDs.pdf

21. CDC. *Chlamydia Disease Information*; May 2001. http://www.cdc.gov/std/Chlamydia/STDFact-Chlamydia.htm

Socio-Demographic Data

Missouri Demographic Summary

Based On Data From Census 2000

Missouri's total population via Census 2000 was 5,595,211, ranking the state 17th highest in the nation. St. Louis County remained the state's largest county, surpassing the million-population threshold. Missouri's population, stratified by race/ethnicity, is detailed in Table 1*. White, non-Hispanics are the largest racial/ethnic group in Missouri representing 83.8% of the total population, with males and females split, 84% and 83.6% respectively. The next largest group in Missouri is the Black, non-Hispanic population at 11.2% of the population. Black, non-Hispanic males and females are proportionally close with 10.8% and 11.6%, respectively. The next largest group in Missouri is Hispanics at 2.1%, and then the non-Hispanics who elected to report more than one racial category on the 2000 census, representing 1.3% of the population. This group is followed by Asians at 1.1%, American Indian/Alaskan Natives at 0.4% and those who reported being some other race (0.1%). The last four groups are evenly divided between males and females.

Table 1. Distribution of the General Population in Missouri, by Race/Ethnicity and Sex, 2000

	MALE	FEMALE	TOTAL
Race/Ethnicity	N=2,720,177	N=2,875,034	N=5,595,211
Hispanic	2.3%	2.0%	2.1%
White, Non-Hispanic	84.0%	83.6%	83.8%
Black, Non-Hispanic	10.8%	11.6%	11.2%
American Indian/ Alaskan Native	0.4%	0.4%	0.4%
Asian	1.1%	1.1%	1.1%
Native Hawaiian or other Pacific Islander	0.1%	0.1%	0.1%
Some other race	0.1%	0.1%	0.1%
Not Hispanic of 2 or more races	1.3%	1.3%	1.3%

Source: http://factfinder.census.gov. Accessed March 2004.

In 2000, the largest percentage of the population were in the two to 12 year old age bracket with 15.5% (Table 2*). The next highest was the 50 to 64 year olds at 15.3% followed by the 40 to 49 year olds at 15% and 30 to 39 year olds at 14.6%. Over thirteen percent (13.5%) of the Missouri population in 2000 was 65 or older.

Table 2. Distribution of the General Population in Missouri, by Age Group and Sex, 2000

	MALE	FEMALE	TOTAL
AGE GROUP	N=2,720,177	N=2,875,034	N=55,95,211
<2	2.8%	2.5%	2.6%
2to12	16.3%	14.8%	15.5%
13to19	10.9%	9.8%	10.3%
20to24	6.8%	6.4%	6.6%
25to29	6.6%	6.3%	6.5%
30to39	15.0%	14.3%	14.6%
40to49	15.2%	14.8%	15.0%
50to64	15.1%	15.4%	15.3%
65+	11.3%	15.6%	13.5%

Source: Census 2000 Summary File 2, http://factfinder.gov. Accessed March 2004.

*The data presented in Tables 1-3 depict sub-groups of the population that are not depicted in other sections of the 2003 Epidemiologic Profiles. Therefore, percentages of the total population for subgroups in these tables will differ from percentages listed elsewhere.

Socio-Demographic Data: Missouri

Table 3* below depicts the 2000 Missouri population stratified by race/ethnicity and HIV regions. The St. Louis and Kansas City regions have the lowest percentage of White, non-Hispanics and the highest percentage of Black, non-Hispanics, of all the regions. The percentages for Black, non-Hispanics in each of these two regions are also higher than the percentage for the state (11.2%). The Kansas City region has the highest percentage of Hispanics (4.2%), followed by the Southwest region at 2.2%. Individuals who classified themselves as a non-Hispanic of 2 or more races have higher representation in the Kansas City (1.6%) and Southwest regions (1.5%) than the state percentage (1.3%), followed closely by the St. Louis Region with 1.2% and North Central with 1.1%. The Northwest and Southeast regions have 0.9%. The percentage of American Indian/ Alaskan Natives is slightly higher in the Southwest region than in the state and other regions.

Table 3. Distribution of the General Population in Missouri, by Race/Ethnicity and HIV Region of Residence, 2000

	St. Louis N=2,003,762	Kansas City N=1,155,161	Northwest N=240,869	North Central N=711,541	Southwest N=1,006,115	Southeast N=477,763
Hispanic	1.5%	4.2%	1.4%	1.5%	2.2%	1.0%
White, Non-Hispanic	76.4%	78.2%	94.5%	91.1%	93.1%	91.8%
Black, Non-Hispanic	19.0%	14.1%	2.5%	4.9%	1.4%	5.5%
American Indian/ Alaskan Native	0.2%	0.4%	0.3%	0.3%	0.9%	0.4%
Asian	1.6%	1.1%	0.3%	0.9%	0.7%	0.3%
Native Hawaiian or other Pacific Islander	0.0%	0.1%	0.0%	0.0%	0.1%	0.0%
Some other race	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%
Not Hispanic of 2 or more races	1.2%	1.6%	0.9%	1.1%	1.5%	0.9%

Source: Census 2000 Summary File 2, http://factfinder.gov. Accessed March 2004.

*The data presented in Tables 1-3 depict sub-groups of the population that are not depicted in other sections of the 2003 Epidemiologic Profiles. Therefore, percentages of the total population for subgroups in these tables will differ from percentages listed elsewhere.

Population Description

Table 4 below describes the 10 counties in the state with the largest and smallest populations. Also indicated are the population changes since 1990 highlighting the counties with the largest and smallest growth, and the counties with the fastest and slowest growth.

Table 4. Population Description for Selected Missouri Counties (Census 1990-2000)

Ten Largest Counties		Ten Smallest Counties	
County	Population	County	Population
St. Louis	1,016,315	Worth	2,382
Jackson	654,880	Mercer	3,757
St. Louis City	348,189	Schuyler	4,170
St. Charles	283,883	Knox	4,361
Greene	240,391	Scotland	4,983
Jefferson	198,099	Putnam	5,223
Clay	184,006	Holt	5,351
Boone	135,454	Carter	5,941
Jasper	104,686	Atchison	6,430
Franklin	93,807	Reynolds	6,689
Largest Growth		**Smallest Growth**	
County	Population	County	Population
St. Charles	70,976	St. Louis City	-48,496
Greene	32,442	Pemiscot	-1,874
Clay	30,595	New Madrid	-1,168
Jefferson	26,719	Atchison	-1,027
Boone	23,075	Mississippi	-1,015
St. Louis	22,786	Chariton	-764
Jackson	21,648	Holt	-683
Christian	21,641	Carroll	-463
Cass	18,284	Shelby	-143
Platte	15,914	Pulaski	-142
Fastest Growth		**Slowest Growth**	
County	Percentage Change	County	Percentage Change
Christian	66.3%	Atchison	-13.8%
Taney	55.3%	St. Louis City	-12.2%
Stone	50.2%	Holt	-11.3%
Lincoln	34.8%	Pemiscot	-8.5%
Camden	34.8%	Chariton	-8.3%
St. Charles	33.3%	Mississippi	-7.0%
Webster	30.7%	New Madrid	-5.6%
Cass	28.7%	Carroll	-4.3%
McDonald	28.0%	Knox	-2.7%
Platte	27.5%	Worth	-2.4%

Source: http://www.ded.mo.gov/business/researchandplanning/indicators/population/popl-mar2001.shtml - Accessed April 2004

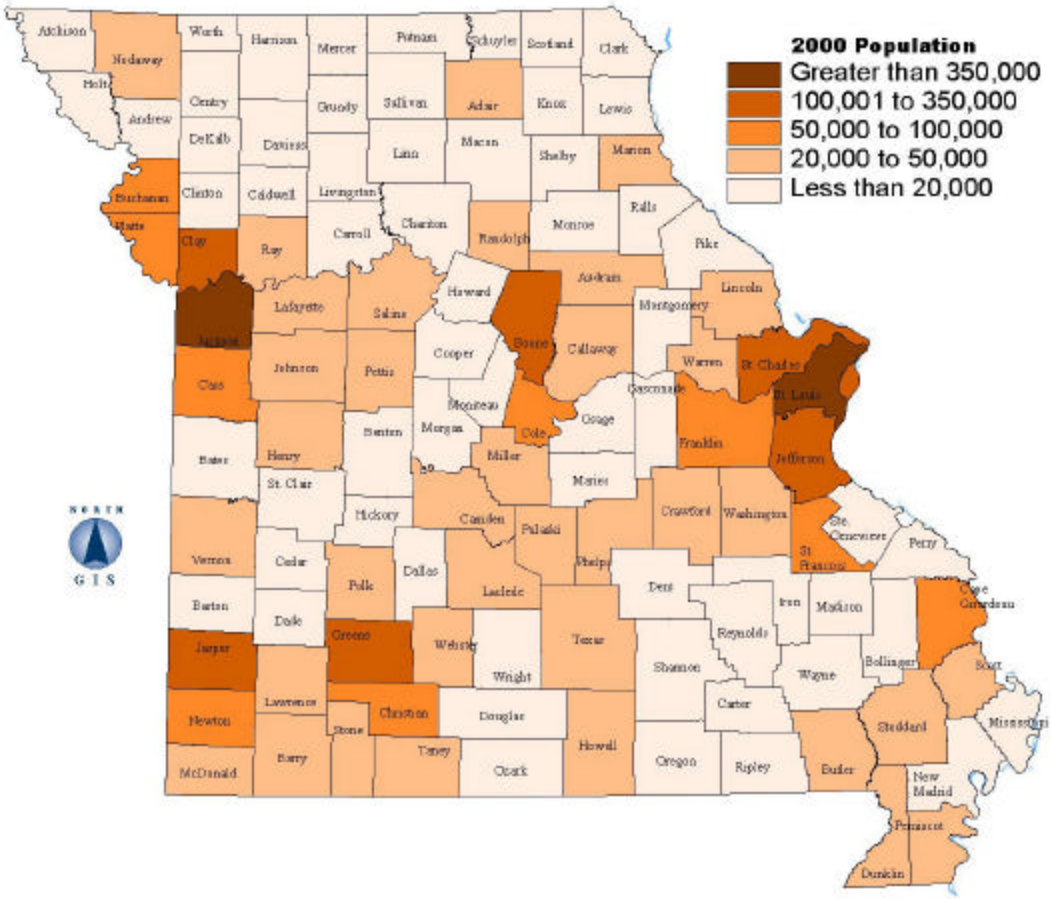
Population Changes

Missouri's population increased by 478,138 persons between 1990 and 2000—a growth rate of 9.3%. This growth was larger than in any other decade this past century. As in recent decades, there were substantial population gains in the Ozark Mountains (Southeast Missouri) and in the state's metropolitan areas. But there also was new growth in many rural counties north and south. Regional population shifts show a continued expansion outward from older, larger urban centers. In fact, the population outside Missouri's combined municipal areas grew at a faster rate in the 1990s (12.1%) than the combined population within them (7.9%).

Among Missouri's counties, Christian County (Southwest Missouri) grew by the highest percentage rate (66.3%) and St. Charles County (Eastern Missouri) gained the most population (70,976) last decade (Figure 1). Worth County (Northwest Missouri) is Missouri's least populous county, with 2,382 citizens. Pemiscot County (Southeast Missouri) lost 1,874 citizens, the most of any county outside St. Louis City. Atchison County (Northwest Missouri) suffered through the fastest rate of decline, losing 13.8% of its residents.

The greatest population growth, 27.16%, occurred in the Springfield region (Greene County, Southwest Missouri). Other regions in Missouri experiencing rapid growth in that period were Lake Ozark-Rolla (Camden, Pulaski, Laclede and Phelps Counties, 15.2%) and Central (15%) regions. The North Central region had negative growth (-0.57%) followed by slow growth in the Bootheel (Southeast Missouri, 1.45%), Northwest (3.37%), and Northeast (3.68%) regions. [Note that these regions are not the same as the HIV Regions used in some of the tables in this section and in other sections of the *HIV Disease and STDs in Missouri Epidemiologic Profiles*.]

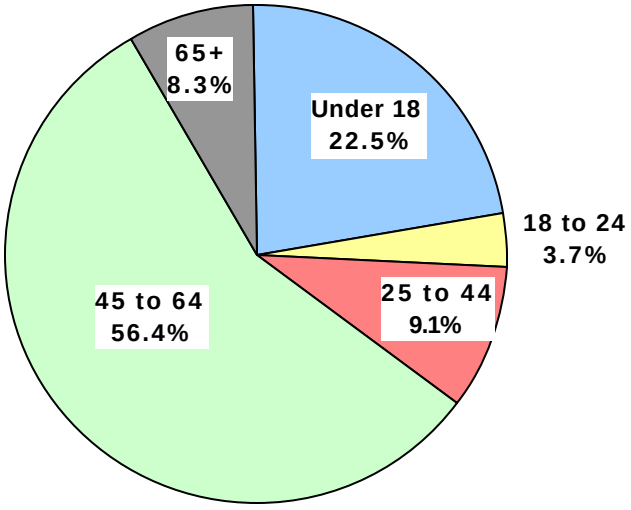
Figure 1. Total Population of Missouri Counties (Census 2000)



Source: http://www.ded.mo.gov/business/researchandplanning/indicators/population/popl-mar2001.shtml - Accessed April 2004

Of the 478,310-person increase in Missouri between 1990 and 2000, more than half (56.4%) was in the 45 to 64 age bracket (Figure 2). The under 18 age bracket followed (22.5%). The smallest portion of the overall Missouri population increase was in the 18 to 24 age bracket (3.7%).

Figure 2. Age Group Contribution to Missouri Resident Population Growth, 1990 to 2000



Source: http://www.ded.mo.gov/business/researchandplanning/indicators/population/popl-mar2001.shtml - Accessed April 2004

Table 5 depicts the growth of Missouri's population by age group from 1990 to 2000. Within the age brackets, and having taken into account the total population, the 45 to 64 age group had tremendous growth in the state from 1990. Overall growth for this age bracket in Missouri between 1990 and 2000 was 27.6%. This increase is not surprising as it contains the Baby Boomer generation. The Baby Boomer generation is defined as those born between 1946 and 1964. It is likely that the 45 to 64 age bracket will continue to grow in the next decade as the second half of the Baby Boomer generation reaches this age bracket.

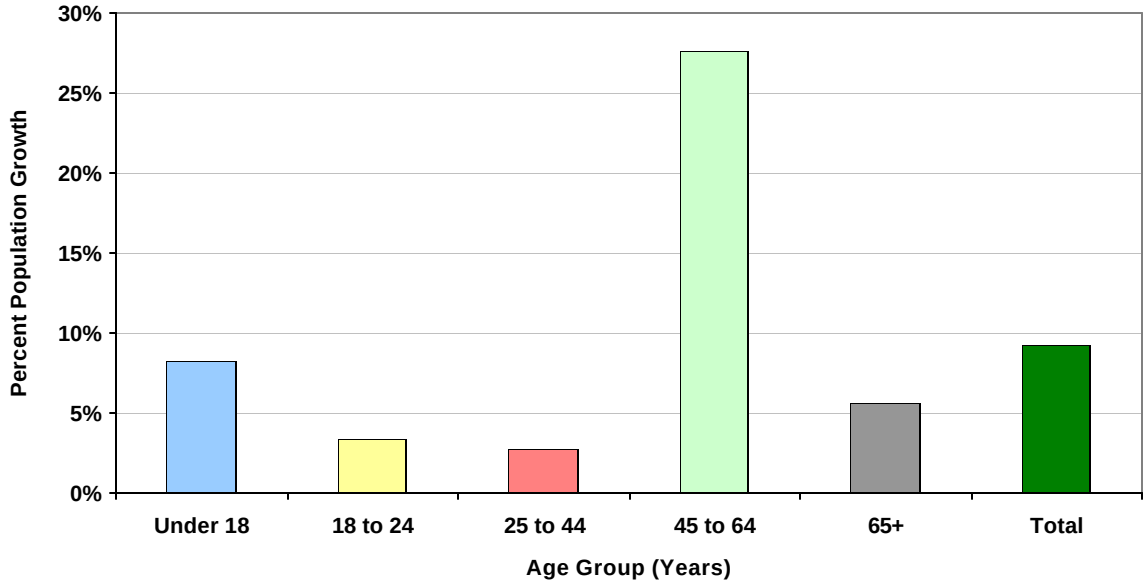
The under 18 age group had the second largest growth rate of 8.2 percent. The largest age category in Missouri in 1990 as well as 2000 continues to be the 25 to 44 age bracket. This group realized a modest 2.8 percent growth during the time period, the least of any age category. The pattern of growth within the age brackets suggests that by the next census, the 45 to 64 age bracket may become the largest age group in the state.

Table 5. Growth of Missouri Resident Population by Age Group, 1990 to 2000

Age Group	1990	2000	Population Increase	Percent Change
Under 18	1,319,066	1,426,779	107,713	8.2%
18 to 24	519,675	537,140	17,465	3.4%
25 to 44	1,584,566	1,628,206	43,640	2.8%
45 to 64	978,098	1,247,732	269,634	27.6%
65+	715,496	755,353	39,857	5.6%
Total	5,116,901	5,595,210	478,309	9.3%

Source: http://www.ded.mo.gov/business/researchandplanning/indicators/population/popl-mar2001.shtml - Accessed April 2004

Figure 3. Percent Growth of Missouri Resident Population by Age Group, 1990 to 2000



Source: http://www.ded.mo.gov/business/researchandplanning/indicators/population/popl-mar2001.shtml - Accessed April 2004

Growth in the 45 to 64 age bracket was also significant regionally. Within the four regions having the largest population growth between 1990 and 2000, the 45 to 64 age bracket contributed most to the population increase in each region. In the Central region, 48.4 percent of the population increase was from the 45 to 64 group, more than twice that of any other group. Similar patterns were seen in the Lake Ozark-Rolla (45.9 percent), Southwest (37.4 percent), and Springfield (35.0 percent) regions.

It is clear that the Baby Boomer generation has had a significant impact on population trends in the last ten years. As this generation ages, continued growth in the 45 to 64 bracket followed by increases in the 65+ group can be expected.

Missouri Minority Populations: Black/African-American

Missouri's second largest racial/ethnic category, Black or African-American, reported significant population increases during the 1990's (Table 6). The Black population grew 14.5% from 549,719 in 1990 to 629,391 in 2000. In contrast, Missouri's total population grew by 9.3% from just over 5.1 million in 1990 to slightly under 5.6 million in 2000.

Table 6. Black/African-American Population of Selected Missouri Counties (Census 1990- 2000)

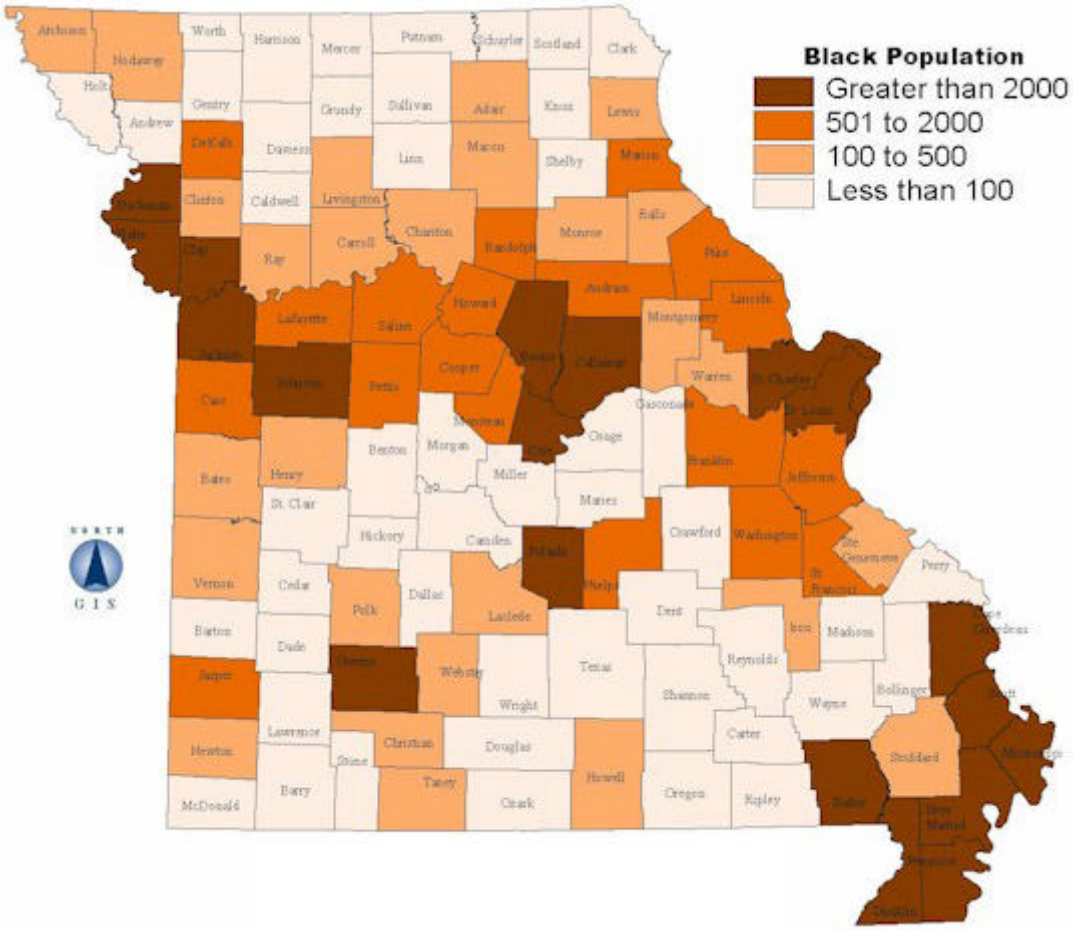
Ten Largest Counties		Ten Smallest Counties	
County	Population	County	Population
St. Louis County	193,306	Mercer County	7
City of St. Louis	178,266	Holt County	6
Jackson County	152,391	Ripley County	6
Boone County	11,572	Carter County	5
St. Charles County	7,635	Clark County	5
Cole County	7,084	Daviess County	4
Greene County	5,426	Knox County	4
Pemiscot County	5,259	Worth County	4
Pulaski County	4,935	Putnam County	3
Clay County	4,894	Schuyler County	2
Ten Largest Growth		**Ten Smallest Growth**	
County	Population	County	Population
St. Louis County	53,711	City of St. Louis	-10,399
Jackson County	16,084	Pulaski County	-770
Boone County	3,165	Johnson County	-382
St. Charles County	2,681	Pemiscot County	-338
Cole County	2,235	New Madrid County	-244
Clay County	2,185	Stoddard County	-139
Greene County	1,665	Lafayette County	-133
Platte County	1,348	Randolph County	-106
Buchanan County	1,098	Saline County	-79
Pike County	834	Lewis County	-78
Ten Fastest Growth		**Ten Slowest Growth**	
County	Percentage Change	County	Percentage Change
Cedar County	1,366.7%	Osage County	-46.2%
Reynolds County	1,066.7%	Stoddard County	-34.0%
Crawford County	1,000.0%	Knox County	-33.3%
Sullivan County	900.0%	Linn County	-29.3%
McDonald County	850.0%	Lewis County	-22.7%
Taney County	762.5%	Ralls County	-22.5%
Ozark County	600.0%	Chariton County	-20.2%
Dent County	490.0%	Carroll County	-19.9%
Carter County	400.0%	Johnson County	-15.5%
Douglas County	366.7%	Lafayette County	-15.1%

Source: http://www.ded.mo.gov/business/researchandplanning/indicators/population/black2000.shtml - Accessed April 2004

Socio-Demographic Data: Missouri

Geographically, the greatest concentrations of the Black/African-American population in Missouri tend to live along the East-West corridor of Interstate 70 running between St. Louis and Kansas City, and in the Southeast corner of the state, locally referred to as “The Bootheel” (Figure 4).

Figure 4. Total Black/African-American Population of Missouri Counties (Census 2000)



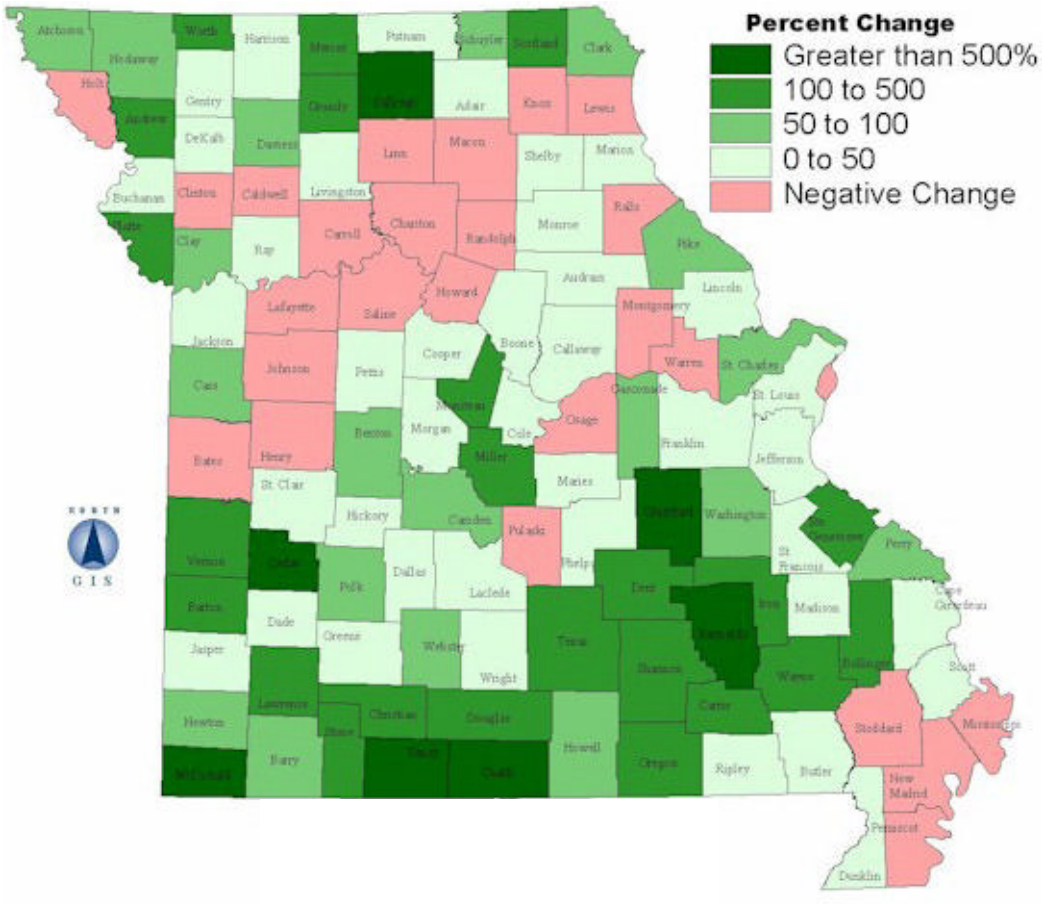
Source: http://www.ded.mo.gov/business/researchandplanning/indicators/population/black2000.shtml - Accessed April 2004

Cedar (1,366.7%), Reynolds (1,066.7%), and Crawford (1,000%) counties reported enormous percent increases since 1990 in the Black population (Figure 5). St. Louis County reported the largest increase in persons - 53,711, a 38.5% increase; followed by Jackson County with 16,084, an 11.8% increase; and Boone County with 3,165, a 37.6% increase. Thirty-two of Missouri's 114 counties reported percentage increases from 1990 of over 100%, with three reporting increases of 1,000% or higher.

Not all of Missouri counties experienced positive growth in the Black population. Osage (-46.2%), Stoddard (-34%), and Knox (-33.3%) counties experienced the largest percent declines in the Black population. St. Louis City experienced the largest decline in the number of Black persons, 10,399, a 5.5% decrease; followed by Pulaski County with a loss of 770 persons, a 13.5% decrease; and Johnson County with a loss of 382 persons, a 15.5% decrease. Overall, 25 of Missouri's 114 counties and St. Louis City reported negative growth in the Black population, while three counties reported no change.

Census data for the 1990 and 2000 census are not directly comparable because individuals could report only one race in the 1990 census and could report multiple races in the 2000 census. Thus the difference in population is due both to changes in the census questionnaire and to real population change.

Figure 5. Percent Change in Black Resident Population for Missouri Counties from 1990 to 2000 (Census 2000)



Source: http://www.ded.mo.gov/business/researchandplanning/indicators/population/popl-mar2001.shtml - Accessed April 2004

Missouri Minority Populations: Hispanics

Missouri's Hispanic population grew 92.2% from 61,698 in 1990 to 118,592 in 2000 (Table 7). In contrast, Missouri's total population grew by 9.3% from just over 5.1 million in 1990 to slightly under 5.6 million in 2000. The Hispanic population growth rate was almost 10 times that of the state's growth rate for the same period.

Table 7. Hispanic Population of Selected Missouri Counties (Census 1990-2000)

Ten Largest Counties		Ten Smallest Counties	
County	Population	County	Population
Jackson County	35,160	Atchison County	43
St. Louis County	14,577	Shelby County	43
City of St. Louis	7,022	Ralls County	42
Clay County	6,594	Scotland County	42
Greene County	4,434	Putnam County	32
St. Charles County	4,176	Schuyler County	27
Jasper County	3,615	Knox County	26
Boone County	2,413	Holt County	21
Pulaski County	2,404	Mercer County	11
Platte County	2,211	Worth County	7
Ten Largest Growth		**Ten Smallest Growth**	
County	Persons	County	Persons
Jackson County	16,272	Putnam County	8
St. Louis County	4,766	Holt County	5
Clay County	3,055	Madison County	4
Jasper County	2,818	Monroe County	4
Greene County	2,659	Mercer County	4
McDonald County	1,909	Bollinger County	-2
City of St. Louis	1,898	Worth County	-2
St. Charles County	1,868	Dade County	-9
Barry County	1,561	Atchison County	-61
Pettis County	1,258	DeKalb County	-75
Ten Fastest Growth		**Ten Slowest Growth**	
County	Percentage Change	County	Percentage Change
Sullivan County	2,164.3%	Daviess County	19.6%
McDonald County	1,577.7%	Nodaway County	14.8%
Barry County	1,027.0%	Linn County	10.6%
Moniteau County	845.7%	Monroe County	8.3%
Pettis County	467.7%	Madison County	6.5%
Lawrence County	466.4%	Bollinger County	-2.9%
Saline County	404.8%	Dade County	-11.8%
Taney County	395.9%	Worth County	-22.2%
Dunklin County	387.6%	DeKalb County	-37.5%
Jasper County	353.6%	Atchison County	-58.7%

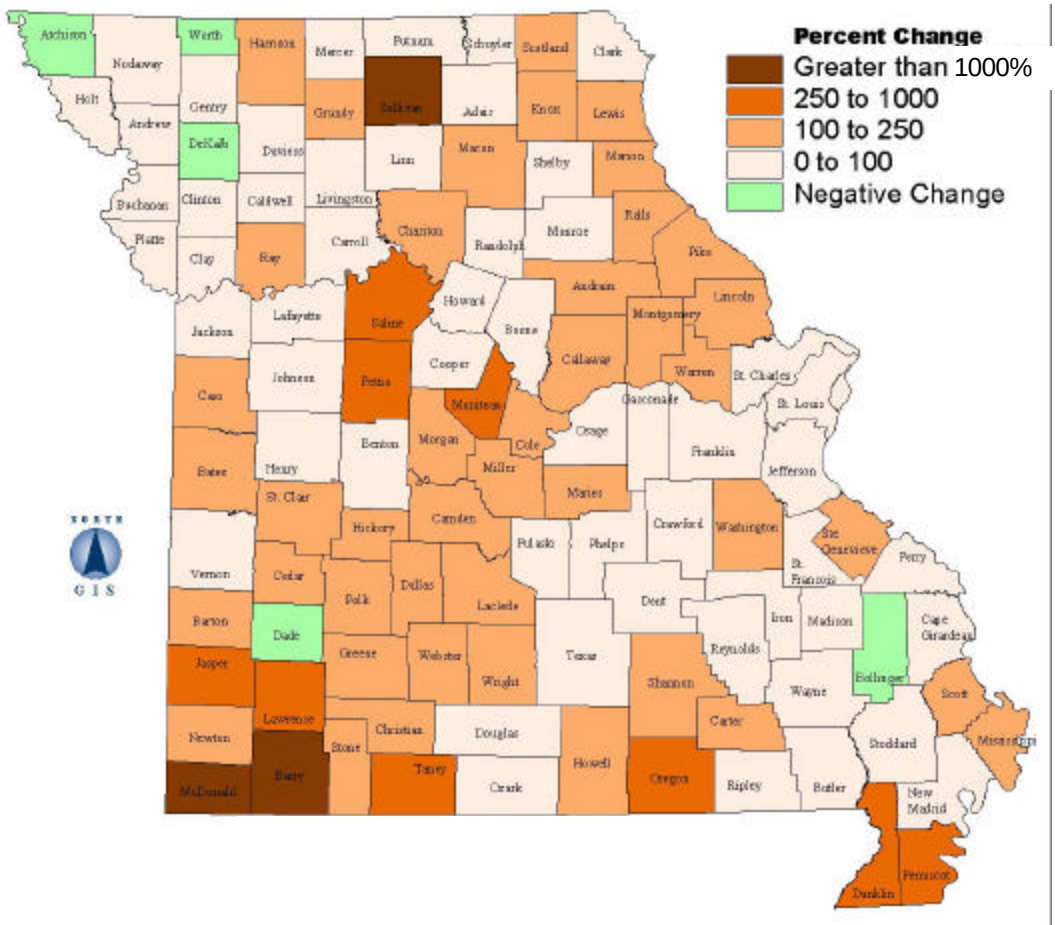
Source: http://www.ded.mo.gov/business/researchandplanning/indicators/population/hispanic2000.shtml - Accessed April 2004

Not all of Missouri counties experienced positive growth in Hispanic populations. Atchison, DeKalb, Worth, Dade, and Bollinger counties reported decreases in Hispanic populations (Figure 6). DeKalb County experienced the largest decline in the number of Hispanic persons, 75, a 37.5% decline. Atchison County experienced the largest percentage loss, a 58.7% decrease, with the number of Hispanic persons decreasing by 61.

Sullivan (2,164.3%), McDonald (1,577.7%), and Barry (1,027%) counties reported enormous percent increases since 1990 in the Hispanic population due to expanding employment opportunities. Jackson County reported the largest increase in Hispanic persons of 16,272, an 86.1% increase; followed by St. Louis County with 4,766, a 48.6% increase; and Clay County with 3,055, an 86.3% increase. Fifty-six of Missouri's 114 counties reported percentage increases from 1990 of over 100%.

The Census Bureau admits that census race data for the 1990 and 2000 census are not directly comparable because individuals could only report one race in the 1990 census and could report multiple races in 2000. However, the differences between 1990 and 2000 for the Hispanic or Latino population were not affected because the Hispanic or Latino population may be of any race.

Figure 6. Percent Change in Hispanic Resident Population for Missouri Counties From 1990 to 2000 (Census 2000)



Source: http://www.ded.mo.gov/business/researchandplanning/indicators/population/popl-mar2001.shtml - Accessed April 2004

Missouri Minority Populations: American Indian/Alaskan Native

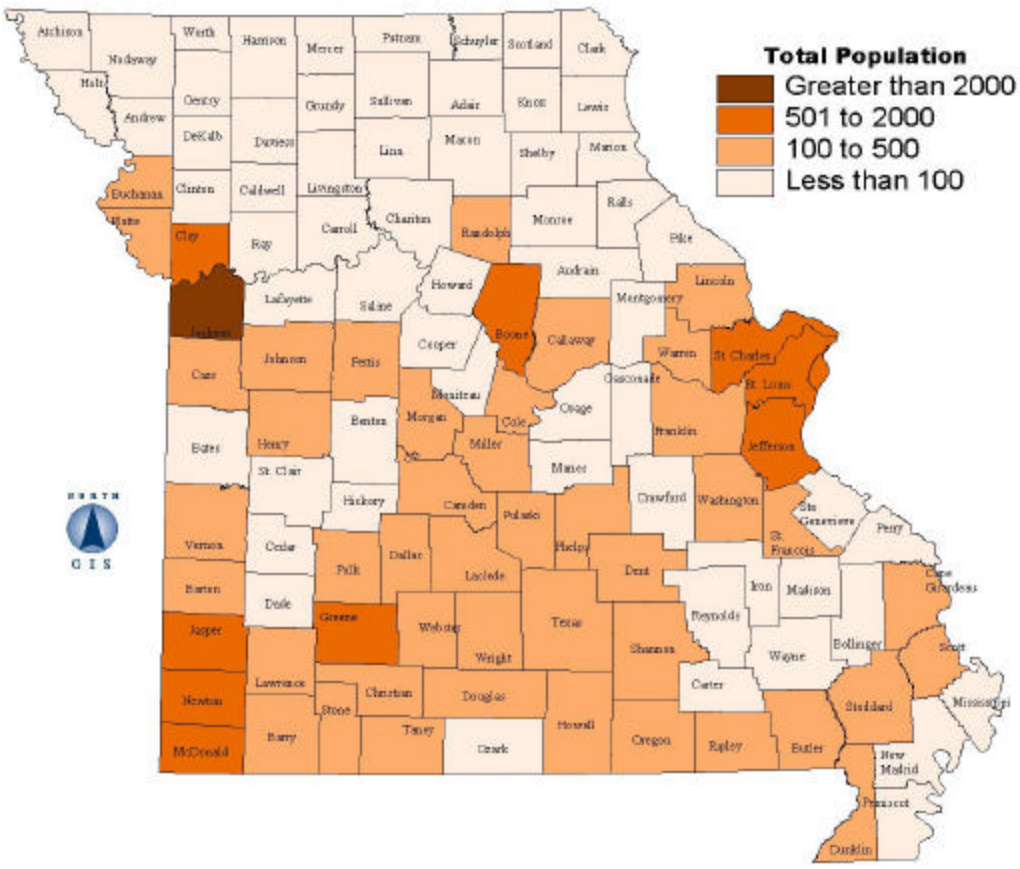
According to the 2000 Census figures, Missouri's population is more diverse than ever, especially urban areas. Missouri's American Indian/Alaskan Native racial/ethnic category experienced 24% growth from 20,221 in 1990 to 25,076 in 2000. Missouri's total population grew by 9.3% from just over 5.1 million in 1990 to slightly under 5.6 million in 2000.

Jackson County, St. Louis County, and Greene County led Missouri in American Indian/Alaskan Native populations with 3,168, 1,717, and 1,583 persons respectively (Figure 7). Scotland, Putnam, and Knox counties reported Missouri's smallest American Indian/Alaskan Native population with populations of 7, 5, and 1 respectively. Greene County reported the largest increase in population with a growth of 290 persons, a 22.4% increase since 1990. Worth County reported the largest percent increase, 700%, growing from a population of 1 in 1990 to 8 in 2000. Overall, 21 Missouri counties experienced a percent increase since 1990 of 100% or higher.

Not all of Missouri counties experienced positive growth in the American Indian/Alaskan Native populations. Jasper County reported the largest decline, losing 127 persons. Ray County and St. Louis City reported losses of 29 and 21 persons respectively. Knox, Putnam and Gentry counties reported the largest percentage decrease in this population with 90%, 44.4%, and 40% respectively. Overall, 21 Missouri counties reported negative growth, while only Marion County reported no change in population.

Census data for the 1990 and 2000 census are not directly comparable because individuals could report only one race in the 1990 census and could report multiple races in 2000. Thus the difference in population is due to both the changes in the census questionnaire and to real population change.

Figure 7. Total American Indian/Alaskan Native Population of Missouri Counties (Census 2000)



Source: http://www.ded.mo.gov/business/researchandplanning/indicators/population/indian2000.shtml - Accessed April 2004

Missouri Minority Populations: Asian/Pacific Islanders

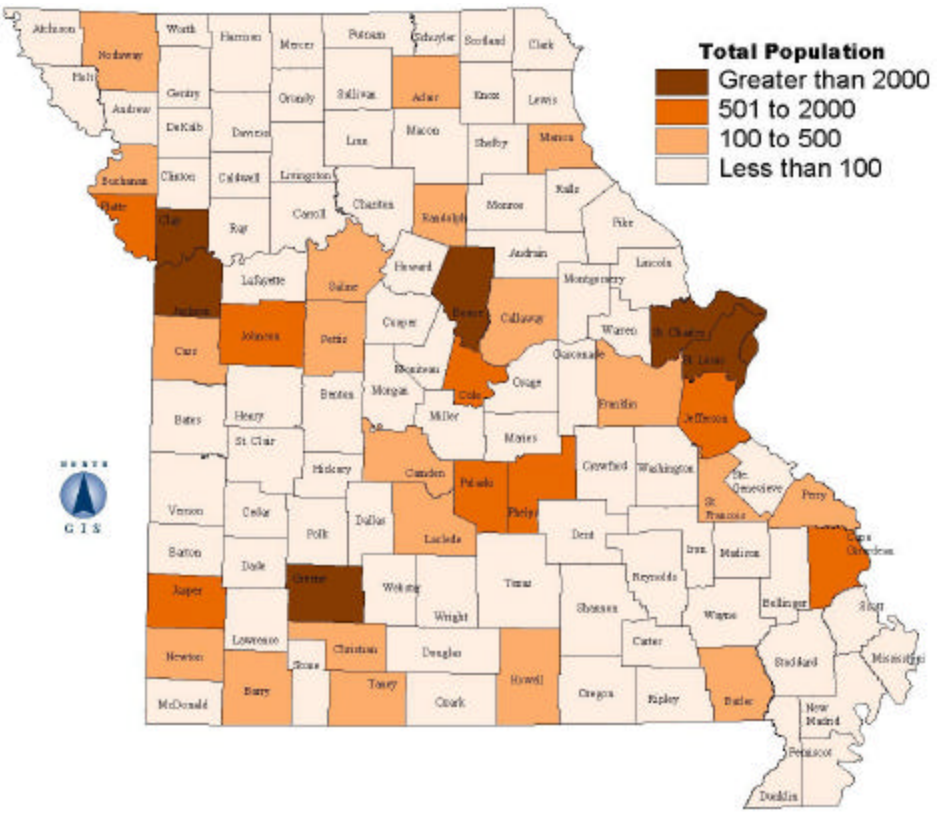
Missouri's Asian/Pacific Islander racial/ethnic category experienced a 55.1% growth from 41,758 in 1990 to 64,773 in 2000. Missouri's total population grew by 9.3% from just over 5.1 million in 1990 to slightly under 5.6 million in 2000.

St. Louis County, Jackson County and St. Louis City lead Missouri in these populations with 22,857, 9,580, and 6,985 persons respectively (Figure 8). Knox, Mercer, and Worth Counties reported Missouri's smallest Asian/Pacific Islander populations with populations of four, two, and two, respectively. St. Louis County reported the largest increase in this population with a growth of 8,629 persons, a 60.6% increase since 1990. Sullivan County reported the largest percent increase, 650%, growing from a population of two in 1990 to 15 in 2000. Overall, 18 Missouri counties reported a percent increase since 1990 of 100% or higher.

Not all of Missouri's counties experienced positive change in the Asian/Pacific Islander population. Pulaski County reported the largest decrease in persons, 199, a 15.7% decrease. Polk and Stoddard Counties both reported a loss of 16 persons. Worth, DeKalb, and Atchison Counties reported the largest percentage decreases with 60%, 40%, and 35.7%, respectively. Overall, 17 Missouri counties reported negative growth, while four reported no change, in Asian/Pacific Islander populations.

Census data for the 1990 and 2000 census are not directly comparable because individuals could report only one race in the 1990 census and could report multiple races in 2000. Thus the difference in population is due to both the changes in the census questionnaire and to real population change.

Figure 8. Total Asian/Pacific Islander Population of Missouri Counties (Census 2000)

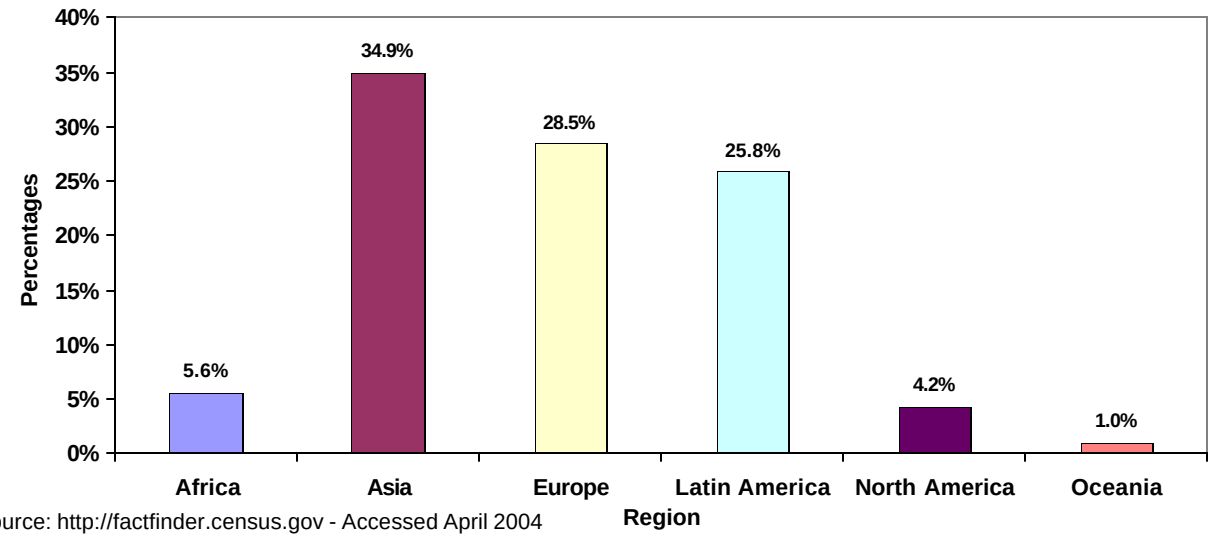


Source: http://www.ded.mo.gov/business/researchandplanning/indicators/population/asian2000.shtml - Accessed April 2004

The Many Cultures of Missouri

According to the 2000 Census, 151,195 (2.7%) of Missouri's population were born in a country other than the United States. Figure 9 below indicates the regions of their birth and the percentages of this population from each identified region. Of all Missourians who were foreign-born, the largest group (34.9%, or 52,733 individuals) was born in Asia. Almost 29% (28.5%), or 43,101 individuals were born in Europe and 25.8% (or 39,048 individuals) in Latin America. The next largest foreign-born group of Missourians was born in Africa (5.6%, or 8,453 individuals), followed by 4.2% (6,280 individuals) from North America, and finally, 1% (1,580 individuals) from Oceania.

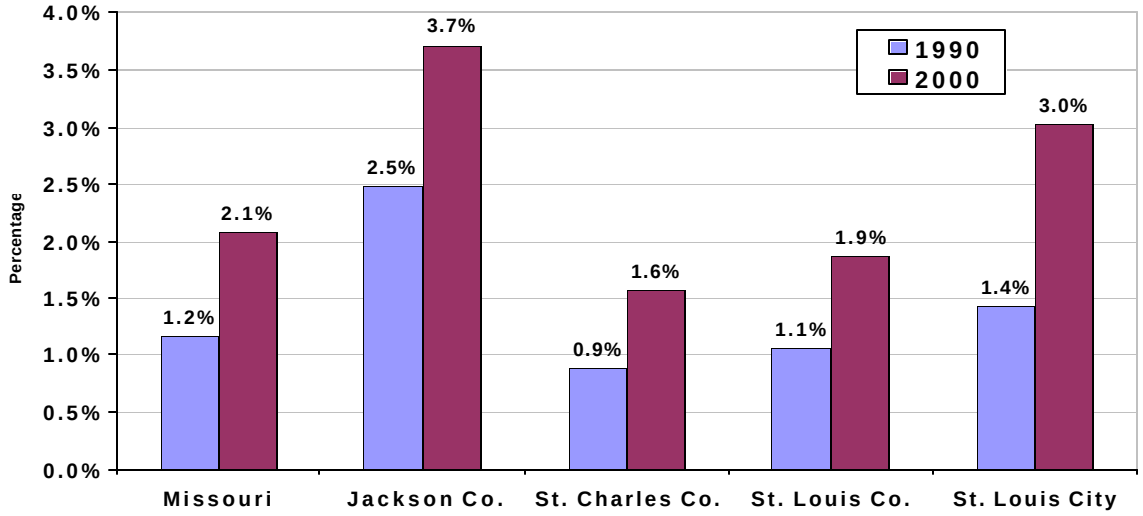
Figure 9. Foreign-Born Missourians, Missouri 2000



Source: http://factfinder.census.gov - Accessed April 2004

Among the total population of Missouri, Spanish is the most common non-English language spoken in the home (Figure 10). Data from the 1990 and 2000 Census show that not only is Spanish dominant versus other non-English languages in Missouri, but also growing as a language used in the home. Among the population of Missourians five years of age and older in 2000, 264,281 individuals (5.1%) reported speaking a language at home other than English. Spanish was the language most often cited, with 110,752 (2.1%) of the non-English speakers followed by 1.9% (97,816 individuals) speaking an Indo-European language other than Spanish, and finally, 0.8% (41,970 individuals) speaking an Asian or Pacific Island language at home.

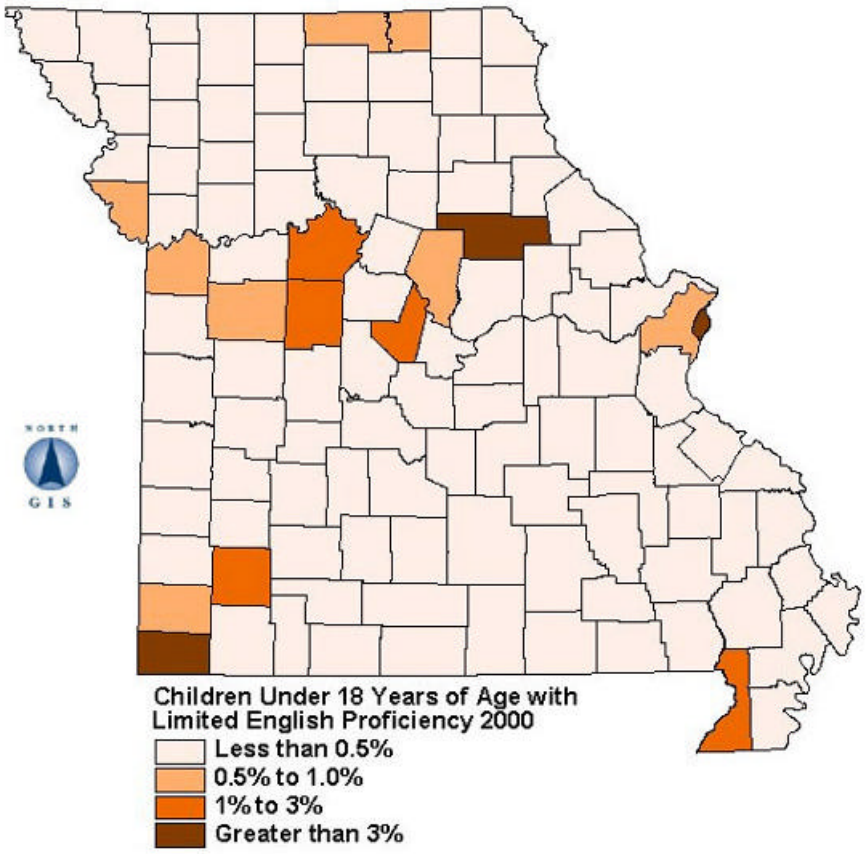
Figure 10. Percent of Population with Spanish as Language Spoken in the Home, Missouri and Selected Missouri Counties



Source: http://factfinder.census.gov - Accessed April 2004

In Missouri, there are children under 18 years of age with limited English language proficiency found in counties across the state. Generally, these children were born in a non-English speaking country and learned to speak their native language prior to moving to Missouri. Furthermore, the language spoken at home is generally not English and they may not be enrolled in school even if they are of school age. According to data analyzed by MERIC (compiled from the Missouri Departments of Social Services and Elementary and Secondary Education, and Office of Administration), in 2000, the percent of children under 18 in Missouri that have limited English language proficiency was approximately 0.6 percent of the total population under age 18. Geographically, children with limited English language proficiency are situated along the I-70 corridor, around Kansas City and St. Louis, and in extreme southwest Missouri (Figure 11).

Figure 11. Percent of the Population of Missouri Counties in 2000 Having Children Under 18 With Limited English Proficiency



Source: http://www.ded.mo.gov/business/researchandplanning/indicators/population/mo_lang.shtml - Accessed April 2004

Additional Demographic Information

Table 8 below depicts the top 20 counties in Missouri with the highest rates of the population living below the poverty level and the HIV Region containing each county. The county with the largest percentage of the population living below the poverty level (Pemiscot) and 10 of the top 20 counties (50%) are in the Southeast Region. The Southwest Region contains eight (40%) of the top 20. Combined, the two HIV regions that comprise the southern part of Missouri contain 90% of the top 20 counties in the state with the highest percentage of people living below the poverty level. Of the remaining two, one is the inner city of St. Louis, the most populous metropolitan area in the state.

Table 8. Percentage of the population under the poverty level for selected Counties in Missouri

County	Percent below poverty	HIV Region
Pemiscot County	30.4%	Southeast
Shannon County	26.9%	Southwest
Carter County	25.2%	Southeast
St. Louis City	24.6%	St. Louis
Dunklin County	24.5%	Southeast
Mississippi County	23.7%	Southeast
Adair County	23.3%	North Central
New Madrid County	22.1%	Southeast
Oregon County	22.0%	Southwest
Ripley County	22.0%	Southeast
Wayne County	21.9%	Southeast
Wright County	21.7%	Southwest
Ozark County	21.6%	Southwest
Texas County	21.4%	Southwest
Washington County	20.8%	Southeast
McDonald County	20.7%	Southwest
Reynolds County	20.1%	Southeast
Hickory County	19.7%	Southwest
St. Clair County	19.6%	Southwest
Iron County	19.0%	Southeast

Source: http://www.census.gov/hhes/poverty/2000census/poppvstat00.html. Accessed March 2004.

The next table (Table 9) includes two indicators of academic attainment for the state as a whole in the three largest Metropolitan Statistical Areas of the state. For individuals 25 years of age and over, the percentage of the state population that did not finish high school was 15.8%. However, for that same population, 24.4% in St. Louis City and 20.6% in Kansas City did not finish high school. On the other hand, 27.4% of the same age group in Kansas City received a bachelor's degree or higher compared to 23.9% for the entire state.

Table 9. Percentage of Population 25 Years and Older, With High School Diplomas or Higher or With Bachelor's Degree, 2000

MSA	HS diploma or more	Bachelor's degree or above
Kansas City	79.4%	27.4%
St. Louis	75.6%	19.4%
Springfield	86.1%	22.6%
Entire State	84.2%	23.9%

Source: Census 2000 Supplementary Survey, www.census.gov/c2ss/www/Products/Profiles/2000/index.htm. Accessed March 2004

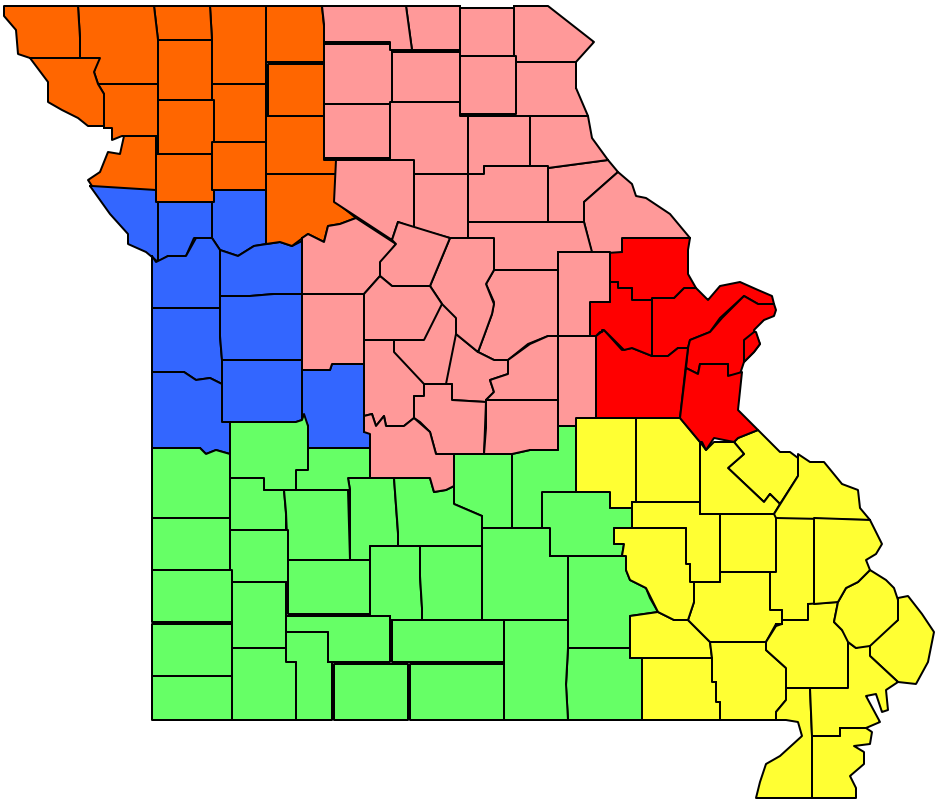
The following table (Table 10) depicts the percentage of the racial/ethnic groups in Missouri, age 64 and below, without health insurance coverage. Hispanics have the highest percentage of individuals without health insurance in this age group (27%), followed by people in the Other category (17%), then Blacks (15%) and Whites at 10%.

Table 10. Percentage of Non-Elderly (0-64 years of age) in Missouri Without Health Insurance Coverage, by Race/Ethnicity, 2000

	Non-Elderly (0-64) yrs.
White	10%
Black	15%
Hispanic	27%
Other	17%

Source: www.statehealthfacts.kff.org. Accessed March 2004

Missouri



2000 Population Estimates for Missouri

Geographic Area	White		African American		American Indian		Asian/Pacific Is.		Hispanic		Total	
St. Louis City	152,666	3.2%	178,266	28.3%	950	3.8%	6,985	10.8%	7,022	5.9%	348,189	6.2%
St. Louis County	780,830	16.4%	193,306	30.7%	1,717	6.8%	22,857	35.3%	14,577	12.3%	1,016,315	18.2%
Kansas City	267,856	5.6%	137,870	21.9%	2,122	8.5%	8,661	13.4%	30,602	25.8%	441,441	7.9%
Outstate	3,546,731	74.7%	119,949	19.1%	20,287	80.9%	26,270	40.6%	66,391	56.0%	3,789,266	67.7%
Missouri	4,748,083	100.0%	629,391	100.0%	25,076	100.0%	64,773	100.0%	118,592	100.0%	5,595,211	100.0%

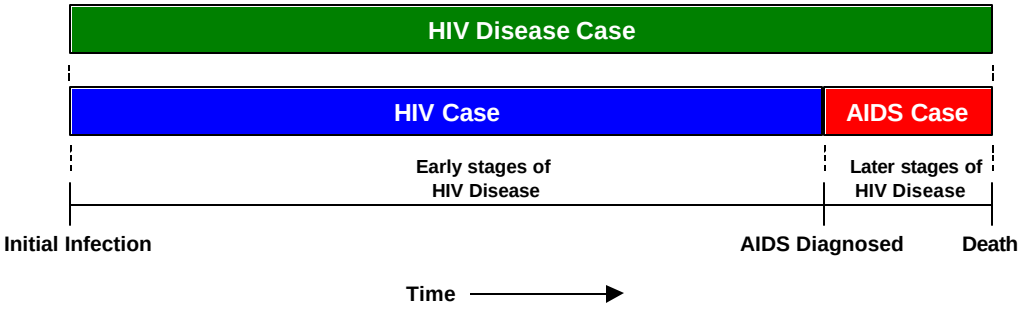
HIV Region	White		African American		American Indian		Asian/Pacific Is.		Hispanic		Total	
St. Louis Region Total	1,547,742	32.6%	382,596	60.8%	4,378	17.5%	33,397	51.6%	29,213	24.6%	2,003,762	35.8%
Kansas City Region Total	926,963	19.5%	164,555	26.1%	5,710	22.8%	14,892	23.0%	48,360	40.8%	1,155,161	20.6%
Northwest Region Total	229,694	4.8%	6,174	1.0%	895	3.6%	856	1.3%	3,489	2.9%	240,869	4.3%
North Central Region Total	654,075	13.8%	35,181	5.6%	2,579	10.3%	6,454	10.0%	10,637	9.0%	711,541	12.7%
Southwest Region Total	948,191	20.0%	14,513	2.3%	9,456	37.7%	7,496	11.6%	22,281	18.8%	1,006,115	18.0%
Southeast Region Total	441,401	9.3%	26,375	4.2%	2,051	8.2%	1,597	2.5%	4,704	4.0%	477,763	8.5%
Missouri	4,748,083	100.0%	629,391	100.0%	25,076	100.0%	64,773	100.0%	118,592	100.0%	5,595,211	100.0%

Source: U.S. Census Bureau

Total numbers and percentages include “Other/Unknown” race/ethnicity not shown on table.

Introductory Comments

Figure 1. Relationship of HIV Disease Cases, HIV Cases, and AIDS Cases



From the time a person is first infected with HIV until death, he/she has HIV Disease, and is termed an **HIV Disease Case**.

An HIV Disease Case can be subclassified as either an **HIV Case** (if he/she is in the earlier stages of HIV Disease) or an **AIDS Case** (if he/she is in the later stages of HIV Disease and has met the case definition for AIDS).

- As indicated in Figure 1, each HIV-infected person is an **HIV Disease case** and, given the lifelong nature of HIV infection, remains an HIV Disease case for the remainder of his/her life.

- Each HIV Disease case can be subclassified as either an **HIV case** or an **AIDS case** (i.e., he/she cannot be both an HIV case and an AIDS case at the same time). Once a person progresses to the later stages of the disease and is diagnosed as an **AIDS case** (by meeting the CDC surveillance case definition), he/she will remain an AIDS case. This is true even if he/she met the AIDS case definition because of a CD4+ lymphocyte count <200 cells/mm^3, and later (perhaps as a result of effective antiretroviral therapy) has a CD4+ count >200 cells/mm^3.

- **HIV cases** generally represent persons who, in comparison to AIDS cases, were infected more recently. Thus the characteristics of reported HIV cases (e.g., race, gender, exposure category) would be expected to more closely represent the characteristics of persons who are currently at highest risk of being infected.

- **AIDS cases** represent persons in the later stages of HIV Disease who are at risk for developing serious, potentially fatal, opportunistic infections. Consequently, AIDS cases, as compared to HIV cases, are individuals who are likely to have relatively greater need for medical and social services, as well as for service coordination assistance.

- Trends in newly diagnosed AIDS cases (AIDS incidence*) reflect, in part, the effects of antiretroviral treatment, since effective treatment given to infected persons while they are still HIV cases will slow the disease process, and consequently slow the progression to AIDS.

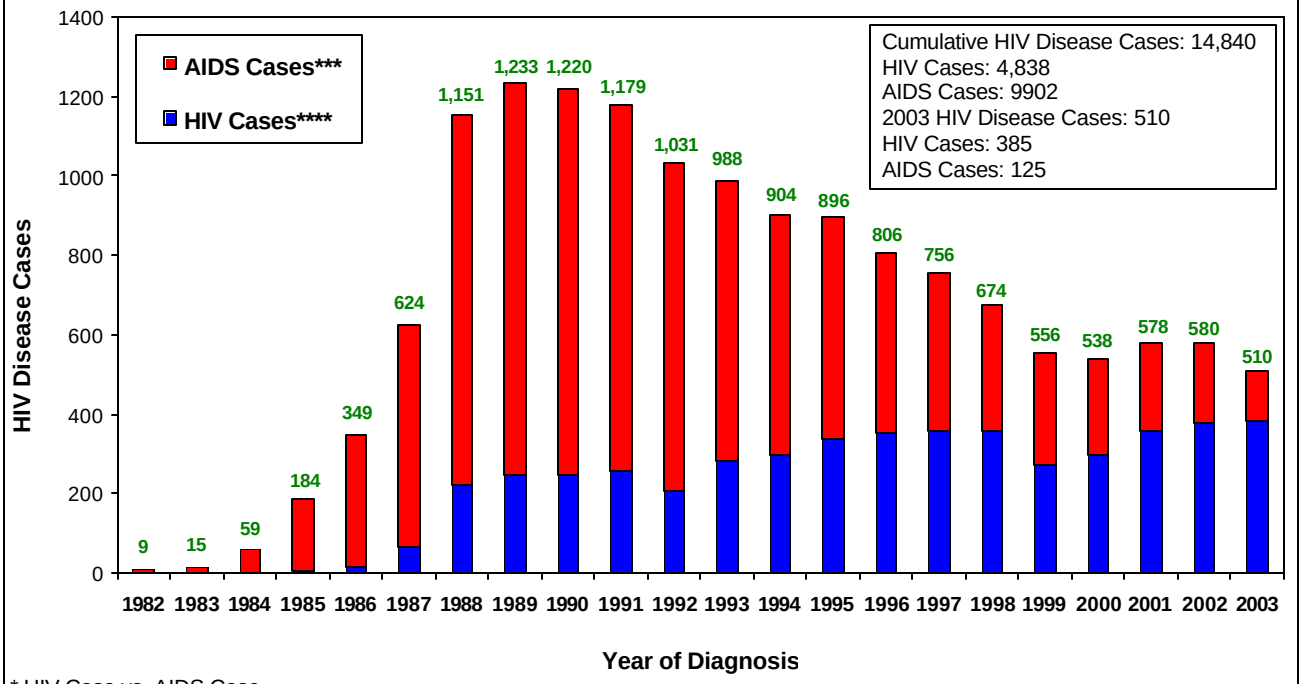
- To understand the epidemiology of HIV Disease in Missouri (i.e., who is being infected, where are these persons located, what are the trends over time), it is necessary to examine not only HIV Disease cases, but also the subcategories of HIV cases and AIDS cases.
- Data are presented in this section by date of diagnosis and date of report. The number of cases reported by date of diagnosis are adjusted to compensate for reporting delays. For a detailed explanation of these issues see "What's New for 2003" in the "Guidelines for Interpreting the 2003 *Epidemiologic Profiles* of HIV Disease and STDs in Missouri" section of the profile.

*For a definition of incidence, see "What's New for 2003" in the "Guidelines for Interpreting the 2003 *Epidemiologic Profiles* of HIV Disease and STDs in Missouri" section of the profile.

Magnitude and Impact of the Problem

- From 1982 through 2003, a total of 14,840 HIV Disease cases have been diagnosed in Missouri residents; 5,345 (36%) of these persons were known to have died. In 2003, 510 new HIV Disease cases were diagnosed and reported for the first time to public health officials. Figure 2.1 shows diagnosed HIV Disease cases by current status (HIV case vs. AIDS case) and year of diagnosis (i.e., the year in which the person was first diagnosed, whether as an HIV case or an AIDS case). The numbers of new HIV and AIDS cases diagnosed in 2003 have been adjusted for delayed reporting.
- In 2003, 125 new AIDS cases were diagnosed and 162 HIV cases progressed to AIDS.
- There were 385 new HIV cases* diagnosed in 2003, an increase of 7 cases (1.9%) from the previous year.

Figure 2.1. HIV Disease Cases by Current Status* and Year of Diagnosis**, Missouri 1982-2003



* HIV Case vs. AIDS Case

**Cases are indicated by year of their initial diagnosis reported to the Missouri Department of Health and Senior Services (i.e., by the year in which the first diagnosis of the person, whether as an HIV case or an AIDS case, was documented and received by the Department.)

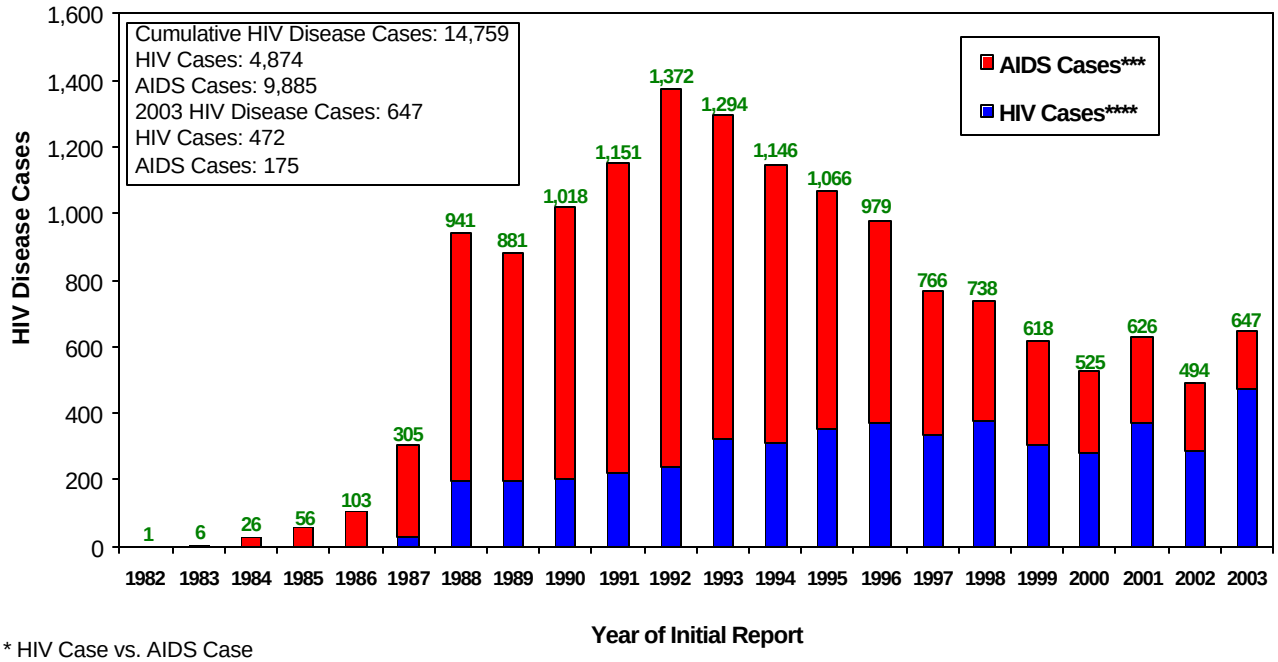
***These cases were either: 1) initially reported as HIV cases and then later reclassified as AIDS cases because they subsequently met the AIDS case definition; or 2) initially reported as an AIDS case.

****These cases were initially reported as HIV cases, and have remained HIV cases (i.e., they have not met the case definition for AIDS).

*Throughout this document, whenever reference is made to HIV cases, this means HIV cases diagnosed during that year which remained HIV cases at the end of the year. Those HIV cases diagnosed in 2003 that later in the year became AIDS cases are not included (instead, they are included among the AIDS cases diagnosed in 2003). 2003 HIV and AIDS data are adjusted for delayed reporting when reported by date of diagnosis.

- Figure 2.2 depicts Missouri HIV cases displayed by date of report rather than date of diagnosis. The numbers of cases for 2003 have not been adjusted for delayed reporting.

Figure 2.2. Reported HIV Disease Cases by Current Status* and Year of Initial Report**, Missouri 1982-2003



* HIV Case vs. AIDS Case

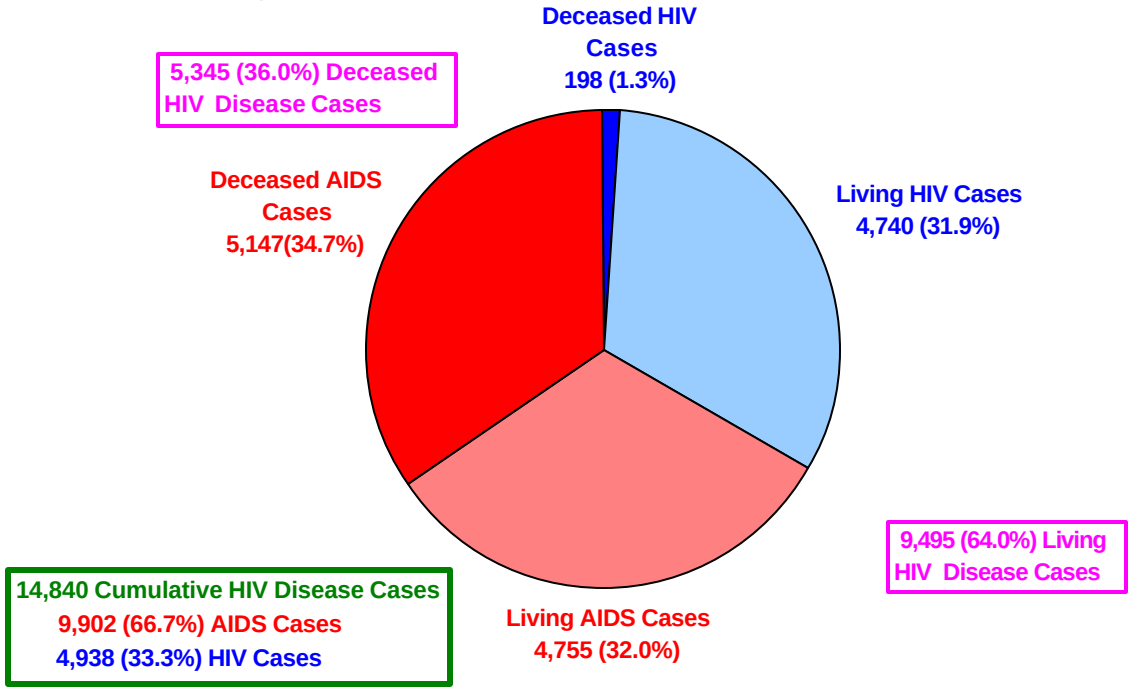
**Cases are indicated by year of their initial diagnosis reported to the Missouri Department of Health and Senior Services (i.e., by the year in which the first diagnosis of the person, whether as an HIV case or an AIDS case, was documented and received by the Department.)

***These cases were either: 1) initially reported as HIV cases and then later reclassified as AIDS cases because they subsequently met the AIDS case definition; or 2) initially reported as an AIDS case.

****These cases were initially reported as HIV cases, and have remained HIV cases (i.e., they have not met the case definition for AIDS).

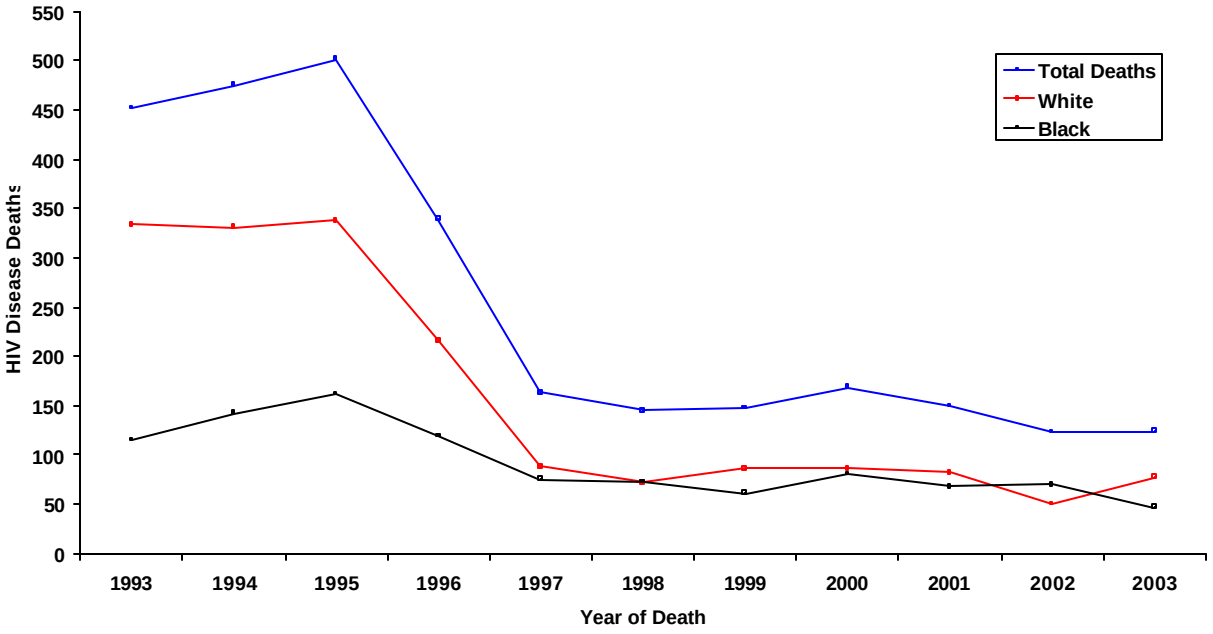
- Of the 14,840 HIV Disease cases, 9,902 (66.7%) met the case definition for AIDS and are thus categorized as AIDS cases; 5,147 (52%) of the 9,902 diagnosed AIDS cases (34.7% of all HIV Disease cases) are known to have died, and 4,755 (48%) of diagnosed AIDS cases (32% of all HIV Disease cases) are living. One third (33.3%) of the 14,840 diagnosed cases had not met the case definition for AIDS, and were categorized as HIV cases (4,938) (Figure 3).

Figure 3. HIV Disease Cases (Living and Deceased) by Current HIV vs. AIDS Status, Missouri 1982-2003



- During 2003, 124 HIV-related deaths in Missouri residents were reported on death certificates. Figure 4 depicts HIV-related deaths by race/ethnicity and year of death for the period 1993-2003. (2003 death certificate data are provisional.)

Figure 4. HIV Disease Deaths by Race/Ethnicity and Year of Death*, Missouri 1993-2003



*Based on death certificate data.

- Figure 5.1 below depicts persons (living and deceased) diagnosed with AIDS by year of initial AIDS diagnosis. The number of newly diagnosed AIDS cases per year in Missouri increased from 1982 until it peaked in 1989. Since then the number has been steadily declining. There were 77 fewer cases for 2003 (125*) than in 2002 (202), a decrease of 38.1%. Figure 5.2 depicts persons (living and deceased) diagnosed with AIDS by year of report rather than year of diagnosis. The number of cases for 2003 have not been adjusted for delayed reporting.

* Adjusted for delayed reporting.

Figure 5.1. Persons Diagnosed With AIDS (Living and Deceased) by Year of Diagnosis, Missouri 1982–2003

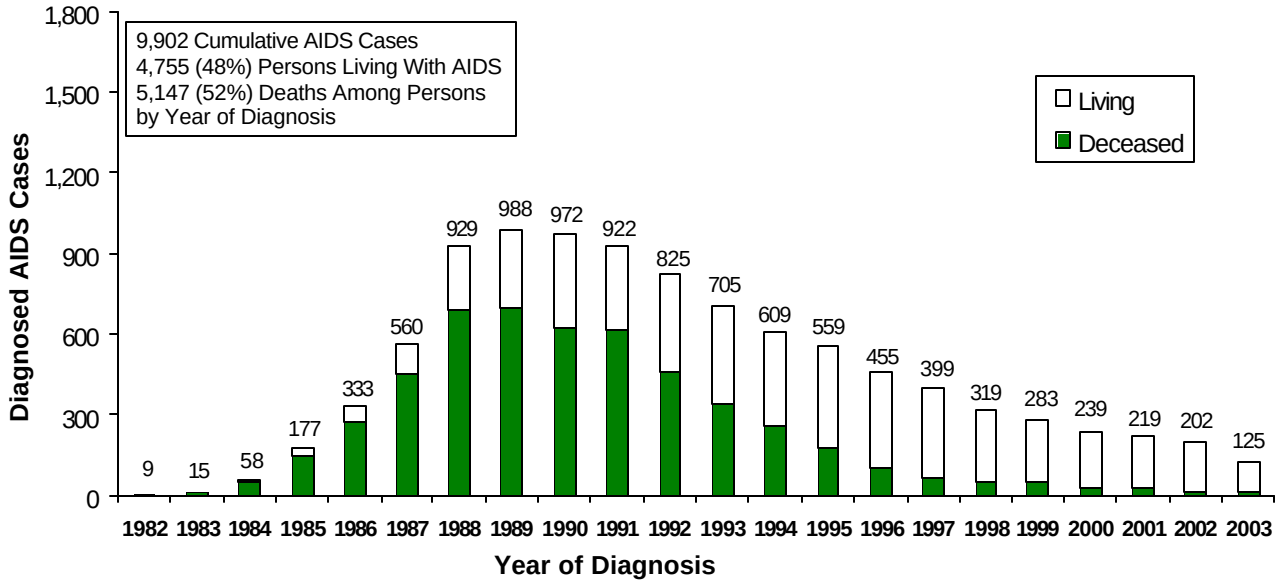
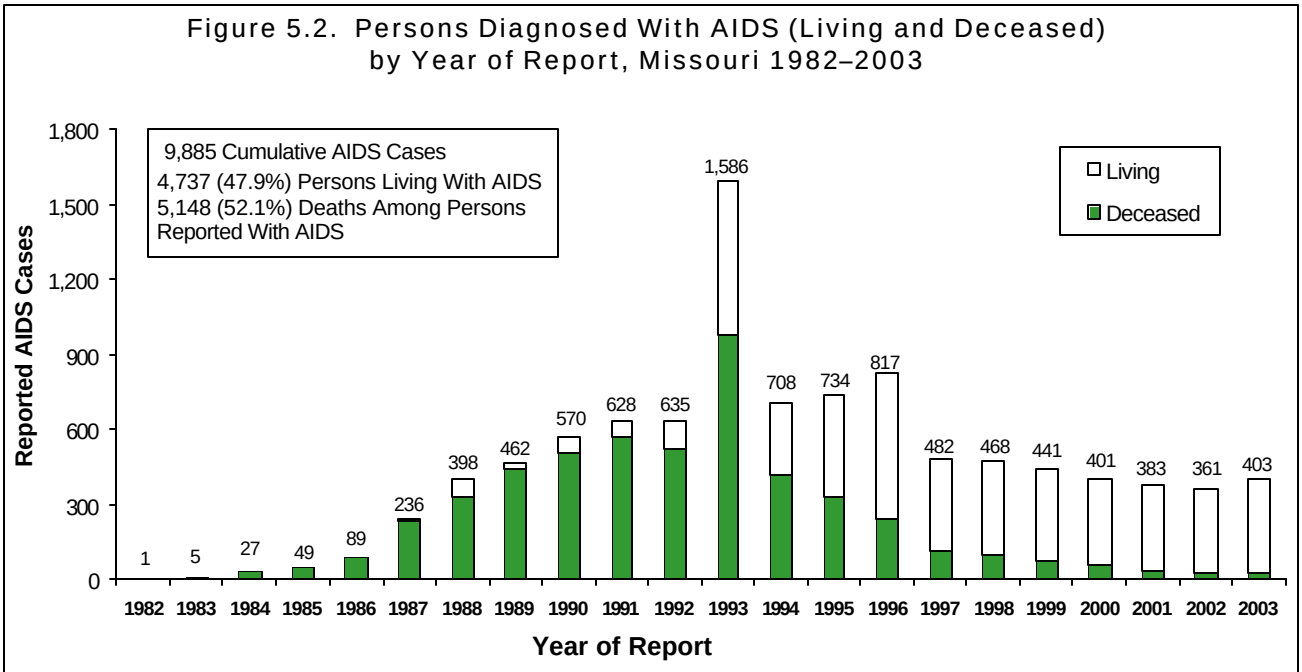


Figure 5.2. Persons Diagnosed With AIDS (Living and Deceased) by Year of Report, Missouri 1982–2003



Who (1)

- Table 1 describes the incidence (new cases) of HIV and AIDS for 2003 by gender and race/ethnicity by date of diagnosis. This AIDS category has been separated to indicate the cases initially diagnosed in 2003 from the AIDS cases that are a result of HIV cases which progressed to AIDS during 2003. The number of HIV Disease cases (510) is determined by adding the number of new HIV cases (385) and the number of AIDS cases initially diagnosed in 2003 (125).
- The number of new HIV cases diagnosed this year (385) versus 2002 (378) represents a 1.9% increase. Of the HIV cases diagnosed in 2003, the incidence rate per 100,000 population among males (11.0) was 3.7 times higher than the case rate for females (3.0) and 1.6 times higher than the state case rate (6.9) for all populations. Of the new AIDS cases diagnosed in 2003, the incidence rate for males (3.8) was 4.8 times higher than females (0.8) and 1.7 times higher than the state case rate (2.2) for all populations. Males with HIV progressed to AIDS at a rate of 4.9 cases per 100,000, while the case rate for females was 1.0. The HIV Disease rate for males (14.8) was four times higher than that of females (3.7).
- Blacks were disproportionately represented among diagnosed HIV and AIDS cases. Although Blacks make up only a little over eleven percent (11.2%) of Missouri's population, the rate of HIV incidence per 100,000 population (33.8) among the Black population was almost 10 times (9.9) that of Whites (3.4) and 4.9 times that of the state case rate (6.9). The AIDS incidence (initial diagnoses) rate for Blacks per 100,000 population in 2003 was 9.4, or 7.2 times higher than the case rate for Whites (1.3) and 4.3 times that of the state case rate (2.2). Blacks with HIV progressed to AIDS at a rate of 14.6 per 100,000 population versus 1.3 for Whites and 2.9 for the state case rate. For overall HIV Disease incidence, the case rate for Blacks (43.2) was 9.2 times higher than Whites (4.7) and 4.7 times higher than the state case rate (9.1) for all populations.
- The HIV incidence rate for Black males in 2003 was 51.2 per 100,000 population, 4.7 times higher than the average for all the males in Missouri (11.0), 8.4 times higher than in White males (6.1), 2.7 times higher than in Black females (18.9) and 7.4 times higher than the state case rate (6.9). The AIDS incidence (initial diagnosis) rate for Black males (14.3) was 5.5 times higher than White males (2.6), 2.8 times higher than Black females (5.1) and 6.5 times that of the state case rate for all populations (2.2). The rate for Black males progressing from HIV to AIDS (22.2 per 100,000 population) was 8.2 times higher than that for White males (2.7), 2.8 times higher than Black females (8.1) and 7.7 times higher than the state case rate (2.9). For overall HIV Disease incidence, the case rate among Black males (65.6) was 7.5 times higher than White males (8.7), 2.7 times higher than Black females (24.0) and 7.2 times higher than the state case rate (9.1) for all populations.
- Among females in Missouri, the HIV incidence rate for Black females (18.9) was 21 times higher than the case rate for White females (0.9) and 6.3 times higher than the state case rate (3.0) for all females. The case rate of newly diagnosed AIDS cases in Black females (5.1) was 25.5 times higher than the case rate for White females (0.2) and 6.4 times that of the case rate for all females (0.8) in Missouri. Black females with HIV progressed to AIDS at 8.1 per 100,000 population, 81 times higher than the case rate for White females (0.1) and 8.1 times higher than the state case rate for all females (1.0). Black females had a case rate of 24.0 for HIV Disease in 2003, 24 times higher than the case rate for White females (1.0) and 6.5 times higher than the state case rate for all females (3.7).
- The low number of cases diagnosed among Hispanics and limitations of the HIV/AIDS Reporting System (HARS) in tracking minority groups made comparisons between Hispanics and other racial/ethnic groups problematic.

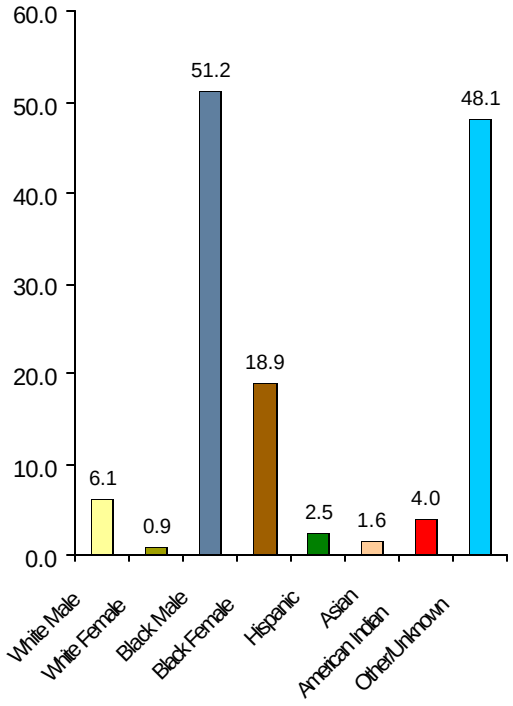
Table 1. Diagnosed HIV, AIDS, and HIV Disease Cases by Gender and Race/Ethnicity, Missouri 2003*

	HIV Cases**			AIDS Initial Diagnosis***			Progression to AIDS****			HIV Disease*****		
	Number	%	Rate	Number	%	Rate	Number	%	Rate	Number	%	Rate
Male	300	77.9%	11.0	103	82.4%	3.8	132	81.5%	4.9	403	79.0%	14.8
Female	85	22.1%	3.0	22	17.6%	0.8	30	18.5%	1.0	107	21.0%	3.7
Totals	385	100.0%	6.9	125	100.0%	2.2	162	100.0%	2.9	510	100.0%	9.1
White	161	41.8%	3.4	63	50.4%	1.3	64	39.5%	1.3	224	43.9%	4.7
Black	213	55.3%	33.8	59	47.2%	9.4	92	56.8%	14.6	272	53.3%	43.2
Hispanic	3	0.8%	2.5	1	0.8%	0.8	4	2.5%	3.4	4	0.8%	3.4
Asian	1	0.3%	1.6	1	0.8%	1.6	1	0.6%	1.6	2	0.4%	3.2
Am Ind	1	0.3%	4.0	0	0.0%	0.0	1	0.6%	4.0	1	0.2%	4.0
Unknown	6	1.6%	48.1	1	0.8%	8.0	0	0.0%	0.0	7	1.4%	56.1
Totals	385	100.1%	6.9	125	100.0%	2.2	162	100.0%	2.9	510	100.0%	9.1
White Male	140	46.7%	6.1	59	57.3%	2.6	61	46.2%	2.7	199	49.4%	8.7
Black Male	150	50.0%	51.2	42	40.8%	14.3	65	49.2%	22.2	192	47.6%	65.6
Hispanic Male	3	1.0%	4.8	1	1.0%	1.6	4	3.0%	6.4	4	1.0%	6.4
Asian Male	1	0.3%	3.4	0	0.0%	0.0	1	0.8%	3.4	1	0.2%	3.4
Am Ind Male	1	0.3%	8.5	0	0.0%	0.0	1	0.8%	8.5	1	0.2%	8.5
Unknown	5	1.7%	12.6	1	1.0%	2.5	0	0.0%	0.0	6	1.5%	15.1
Totals	300	100.0%	11.0	103	100.1%	3.8	132	100.0%	4.9	403	99.9%	14.8
White Female	21	24.7%	0.9	4	18.2%	0.2	3	10.0%	0.1	25	23.4%	1.0
Black Female	63	74.1%	18.9	17	77.3%	5.1	27	90.0%	8.1	80	74.8%	24.0
Hispanic Female	0	0.0%	0.0	1	4.5%	1.8	0	0.0%	0.0	1	0.9%	1.8
Asian Female	0	0.0%	0.0	0	0.0%	0.0	0	0.0%	0.0	0	0.0%	0.0
Am Ind Female	0	0.0%	0.0	0	0.0%	0.0	0	0.0%	0.0	0	0.0%	0.0
Unknown	1	1.2%	2.0	0	0.0%	0.0	0	0.0%	0.0	1	0.9%	2.0
Totals	85	100.0%	3.0	22	100.0%	0.8	30	100.0%	1.0	107	100.0%	3.7

*All numbers have been adjusted to compensate for delayed reporting. Rates are per 100,000 population and are based on 2000 U.S. Census Bureau data.
**HIV Cases diagnosed during 2003 which remained HIV cases at the end of the year.
***AIDS Cases initially diagnosed in 2003.
****Cases initially diagnosed prior to 2003, but progressed to AIDS in 2003.
*****The sum of newly diagnosed HIV cases and newly diagnosed AIDS cases. Does not include cases which progressed to AIDS in 2003.

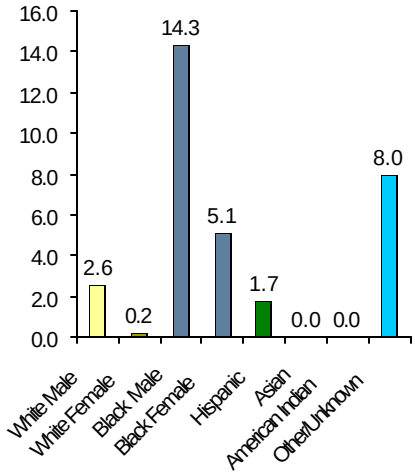
- Figure 6 is a graphical representation of HIV incidence rates by race/ethnicity from Table 1.

Figure 6. Diagnosed HIV Incidence Rates* by Race/Ethnicity and Gender, Missouri 2003



- Figure 7 is a graphical representation of AIDS incidence rates (newly diagnosed in 2003) by race/ethnicity from Table 1.

Figure 7. Diagnosed AIDS Incidence Rates* by Race/Ethnicity and Gender, Missouri 2003



* Rates per 100,000 population, based on 2000 Census.

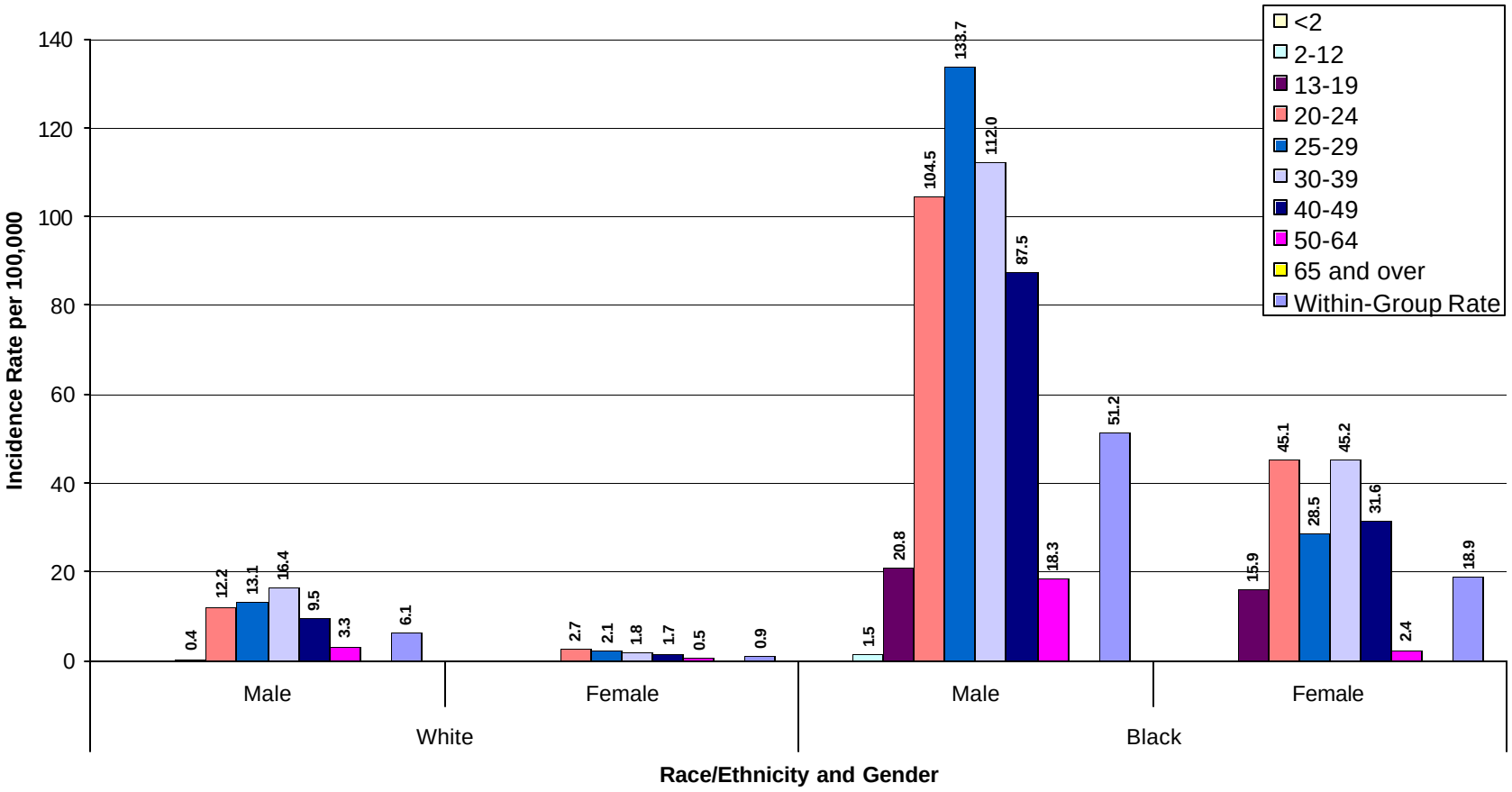
- Figure 8 depicts the HIV incidence in Missouri for 2003, stratified by race/ethnicity, gender, and age groups and presented by rate per 100,000 population. Black males and females had the highest rates. Among males, the age group 25-29 had the highest rate of new infections (133.7 cases per 100,000 population) followed by the 30-39 year old age group (112.0). The 20-24 year old age group had the next highest case rate (104.5) followed by the 40-49 year old age group (87.5). Among Black females, the 30-39 and 20-24 year old age groups had almost exactly the same case rate--45.2 and 45.1, respectively, followed by the 40-49 year old age group (31.6).

- Among White males, the 30-39 year old age group had the highest rate (16.4 new cases per 100,000 population), followed by the 25-29 year old age group at 13.1, the 20-24 year old age group at 12.2, and the 40-49 year old age group at 9.5. Among White females, the 20-24 year old age group had the highest rate of new cases at 2.7 per 100,000 population.

- Among Hispanics, there were no new HIV cases in females for 2003. Among the males, the 30-39 year old age group had the highest case rate (19.6), followed by the 40-49 year old age group (15.0).

- Among the racial/ethnic groups, only the Black population had new HIV cases in the 2-12 and 13-19 year old age groups with case rates of 1.5 and 20.8, respectively. The Black female 13-19 year old age group had a rate of new infections at 15.9 per 100,000 population.

Figure 8. HIV Incidence Rates for Selected Race/Ethnicity/Gender Groups, by Age Group, Missouri 2003



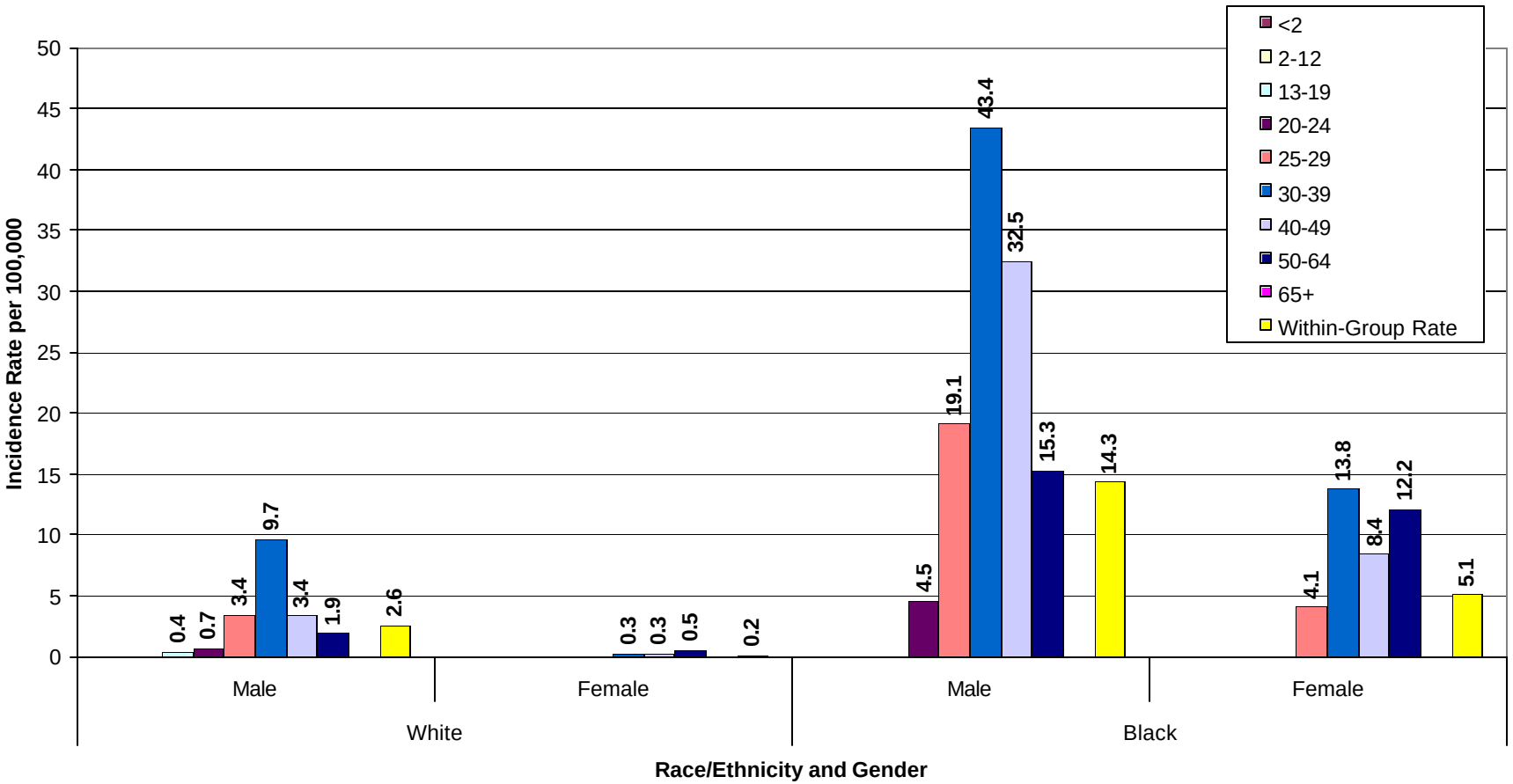
- Figure 9 depicts AIDS cases* initially diagnosed in Missouri for 2003, stratified by race/ethnicity, gender, and age groups, and presented by rate per 100,000 population. Black males and females had the highest case rates. Among males, the age group 30-39 had the highest rate of new infections (43.4 cases per 100,000 population) followed by the 40-49 year old age group (32.5). The 25-29 year old age group had the next highest case rate (19.1) followed by the 50-64 year old age group (15.3). Among Black females, the 30-39 year old age group had the highest rate (13.8 cases per 100,000 population) followed by the 50-64 year old age group (12.2) and the 40-49 year old age group (8.4).

- Among White males, the 30-39 year old age group had the highest rate (9.7 new cases per 100,000 population), followed by the 25-29 and the 40-49 year old age groups with 3.4 each. The case rates among White females are low for all age groups, but the 50-64 year old age group had the highest rate of new cases at 0.5 per 100,000 population.

- Among Hispanics, there were no new AIDS cases in males or females for 2003.

*Does not include HIV cases that progressed to AIDS during 2003.

Figure 9. AIDS Incidence Rates for Selected Race/Ethnicity/Gender Groups, by Age Group, Missouri 2003

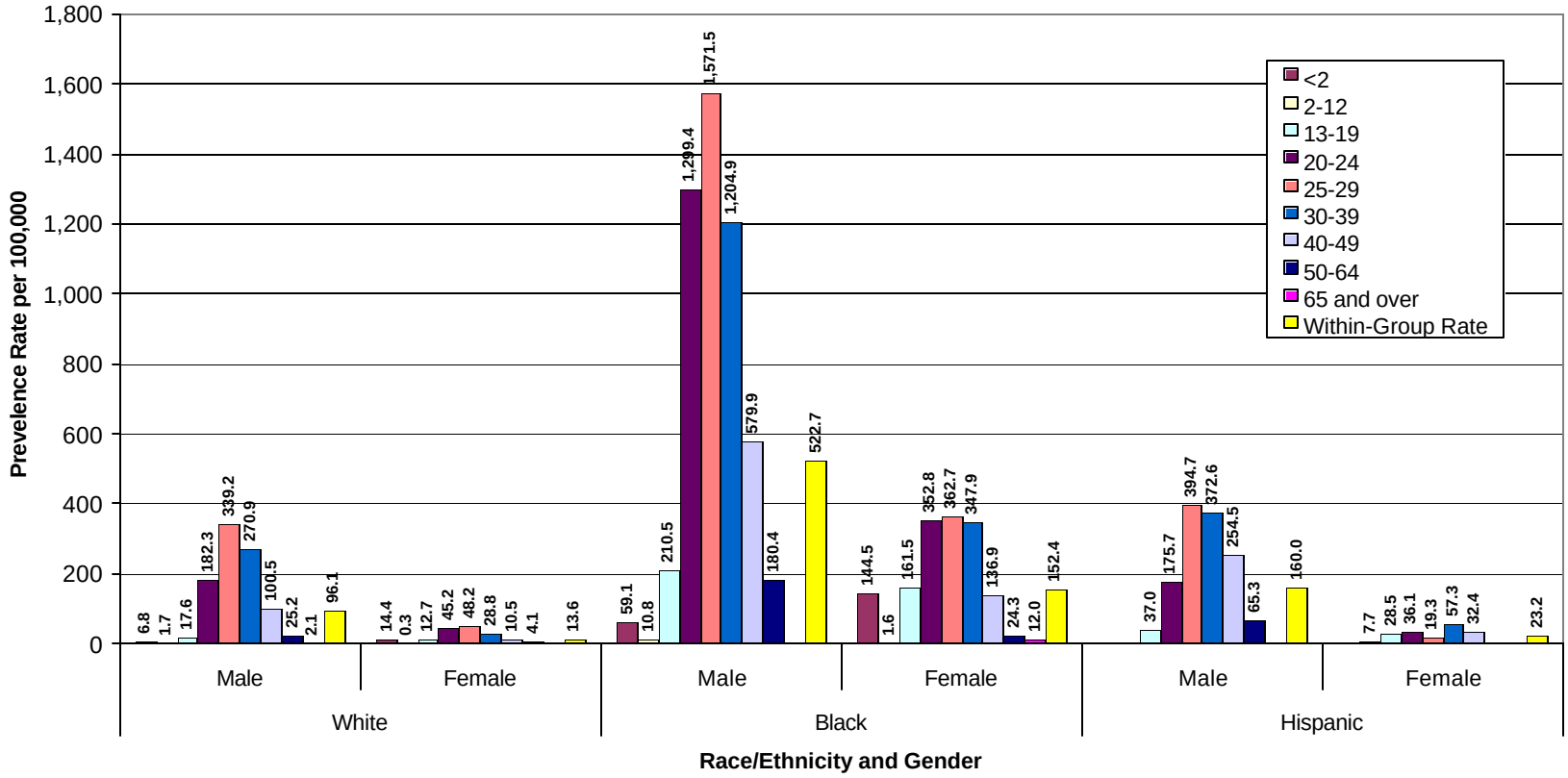


- Figure 10 depicts HIV cases that have been diagnosed and reported in Missouri who were still alive in 2003, stratified by race/ethnicity, gender, and age groups, and presented by rate per 100,000 population. Black males had the highest case rates. The 25-29 year old age group had the highest rate of living cases (1,571.5 cases per 100,000 population) followed by the 20-24 year old age group (1,299.4). The 30-39 year old age group had the next highest case rate (1,204.9) followed by the 40-49 year old age group (579.9). Among Black females, the 25-29 year old age group had the highest rate per 100,000 population for currently living HIV cases (362.7). The 20-24 and 30-39 year old age groups had case rates of 352.8 and 347.9, respectively.

- As a group, Hispanic males had the next highest case rates for HIV infections (160.0). Within this group, the highest case rate is in the 25-29 year old age group (394.7), followed closely by the 30-39 year old age group (372.6). The next highest case rate within this population was in the 40-49 year old age group (254.5), followed by the 20-24 year old age group (175.7 per 100,000 population). Among Hispanic females, the 30-39 year old age group had the highest case rate (57.3), followed by the 20-24 year old age group, the 40-49 year old age group and the 13-19 year old age group with case rates of 36.1, 32.4 and 28.5, respectively.

- Among White males, the 25-29 year old age group had the highest rate of living cases per 100,000 population (339.2), followed by the 30-39 year old age group (270.9), the 20-24 year old age group (182.3), and the 40-49 year old age group (100.5). Among White females, the 25-29 and 20-24 year old age groups had the highest rate of living HIV cases at 48.2 and 45.2 respectively per 100,000 population. The 30-39 year old age group was the third highest with 28.8 cases per 100,000 population.

Figure 10. HIV Prevalence Rates for Selected Race/Ethnicity/Gender Groups, by Age Group, Missouri 2003

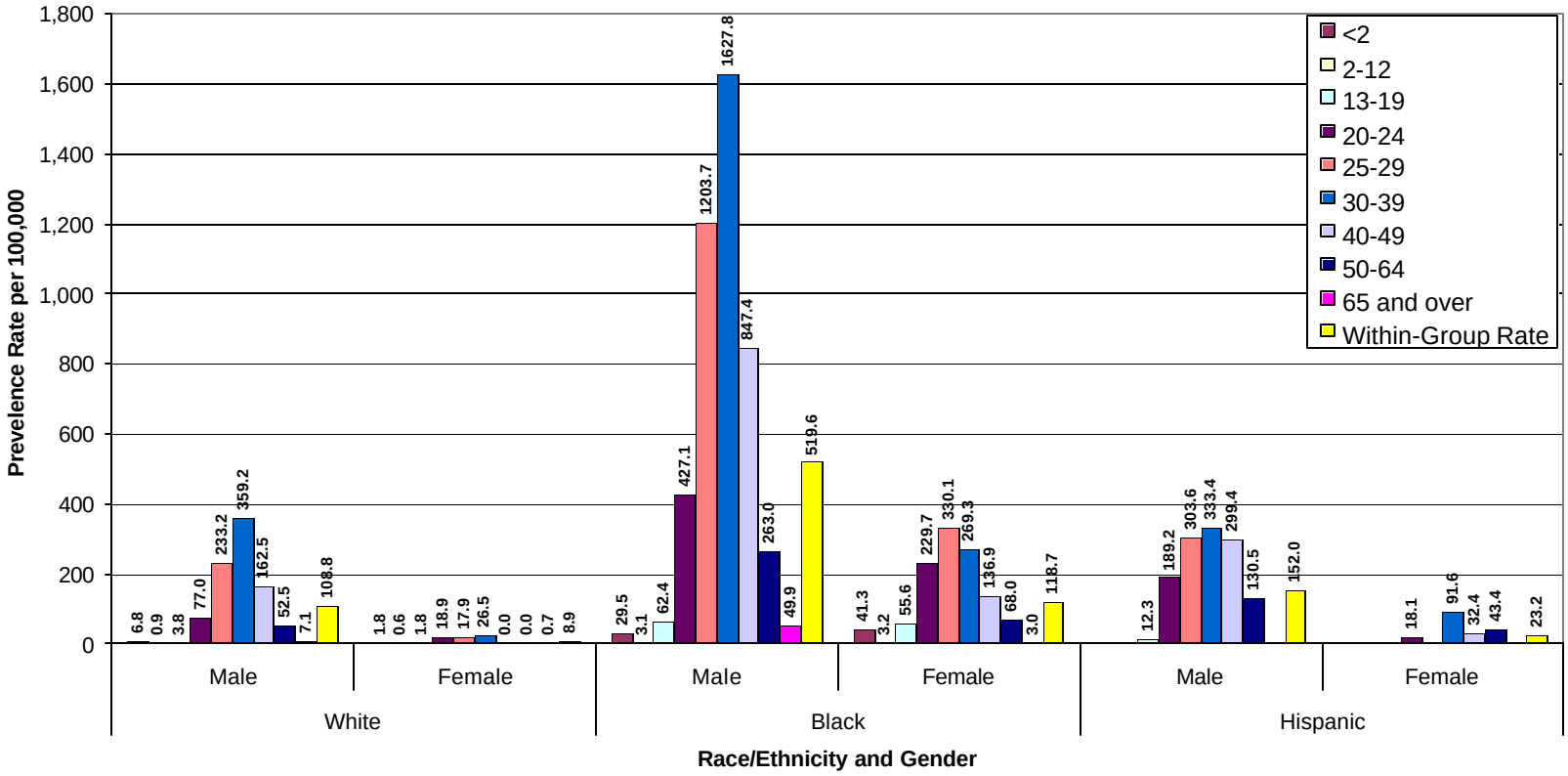


- Figure 11 depicts AIDS cases that have been diagnosed and reported in Missouri and were still alive in 2003, stratified by race/ethnicity, gender, and age groups, and presented by rate per 100,000 population. Black males had the highest case rates. The 30-39 year old age group had the highest rate of living cases at 1,627.8 cases per 100,000 population followed by the 25-29 year old age group (1,203.7 cases per 100,000 population). The 34-49 year old age group had the next highest case rate (847.4) followed by the 20-24 year old age group (427.1). Among Black females, the 25-29 year old age group had the highest case rate (330.1), followed by the 30-39 year old age group (269.3), the 20-24 year old age group (229.7) and the 40-49 year old age group (136.9).

- As a group, Hispanic males had the next highest rates for AIDS infections (152.0) per 100,000. Within this group, the highest case rate was in the 30-39 year old age group (333.4), followed by the 25-29 year old age group at 303.6 with the 40-49 year old age group at 299.4. The next highest case rate within this population was in the 20-24 year old age group (189.2), followed by the 50-64 year old age group (130.5 per 100,000 population). Among Hispanic females, the 30-39 year old age group had the highest rate (91.6), followed by the 50-64 year old age group, the 40-49 year old age group and the 20-24 year old age group with rates of 43.4, 32.4 and 18.1, respectively.

- Among White males, the 30-39 year old age group had the highest rate of currently living AIDS cases (359.2 cases per 100,000 population), followed by the 25-29 year old age group (233.2), the 40-49 year old age group (162.5), and the 20-24 year old age group (77.0). Among White females, the 30-39 year old age group had the highest rate of living HIV cases (26.5 per 100,000 population), followed by the 20-24 and 25-29 age groups at 18.9 and 17.9, respectively.

Figure 11. AIDS Prevalence Rates for Selected Race/Ethnicity/Gender Groups, by Age Group, Missouri 2003



Who (1)

- Table 2 shows HIV and AIDS cases by adjusted exposure category. In this table, those cases classified as "Other/Unknown Adult" at the end of 2003, many of which were still under investigation, had been assigned to a specific exposure category (i.e., MSM, MSM/IDU, IDU, heterosexual contact) in order to more clearly depict trends in reported HIV/AIDS cases. The proportion of these cases assigned to a given exposure category is based on past experience with Other/Unknown Adult cases whose risk exposure has been determined following investigation.
- The most common mode of transmission for all HIV and AIDS cases reported was men who have sex with men (MSM), with the second highest being heterosexual contact.
- Of the 470 adult/adolescent HIV cases reported in 2003: 277 (58.9%) were in men who have sex with men (MSM); 6 (1.3%) in men who have sex with men and inject drugs (MSM/IDUs); 28 (6%) in injecting drug users (IDUs); and 159 (33.8%) in heterosexual contacts.
- Of the 403 adult/adolescent AIDS cases reported in 2003: 247 (61.3%) were in MSM; 19 (4.7%) in MSM/IDUs; 29 (7.2%) in IDUs; 104 (25.8%) in heterosexual contacts; 3 (0.7%) in hemophiliac patients; and 1 (0.2%) in transfusion/transplant recipients.
- The percentage of HIV reported cases for the MSM and MSM/IDU populations slightly decreased in 2002, but increased slightly among the IDU and heterosexual contact populations.

Table 2. HIV AND AIDS CASES BY ADJUSTED EXPOSURE CATEGORY MISSOURI REPORTED 2003, AND CUMULATIVE THROUGH DECEMBER 2003

	HIV CASES				AIDS CASES			
EXPOSURE CATEGORY	2003*		CUMULATIVE		2003		CUMULATIVE	
ADULT/ADOLESCENT								
MEN WHO HAVE SEX WITH MEN	277	58.9%	3,003	62.2%	247	61.3%	6,885	70.2%
MEN WHO HAVE SEX WITH MEN & INJECT DRUGS	6	1.3%	264	5.5%	19	4.7%	844	8.6%
INJECTING DRUG USE	28	6.0%	422	8.7%	29	7.2%	762	7.8%
HETEROSEXUAL CONTACT	159	33.8%	1,097	22.7%	104	25.8%	1,067	10.9%
HEMOPHILIA/COAGULATION DISORDER	0	0.0%	27	0.6%	3	0.7%	152	1.5%
BLOOD TRANSFUSION OR TISSUE RECIPIENT	0	0.0%	13	0.3%	1	0.2%	103	1.0%
RISK NOT SPECIFIED	-----	-------	-----	-------	-----	-------	-----	-------
ADULT/ADOLESCENT SUBTOTAL	**470**	**100.0%**	**4,826**	**100.0%**	**403**	**99.9%**	**9,813**	**100.0%**
PEDIATRIC (<13 YEARS OLD)								
PEDIATRIC SUBTOTAL	**2**	**100.0%**	**48**	**100.0%**	**0**	**0.0%**	**72**	**100.0%**
TOTAL	**472**		**4,874**		**403**		**9,885**	

*HIV cases reported during 2003 which remained HIV cases at the end of that year.

- Since reporting of AIDS began in 1982 and HIV in 1987, a total of 38 perinatal HIV cases and 48 perinatal AIDS cases have been reported. In 2003, 2 perinatal HIV case and no perinatal AIDS case were reported. (Perinatal cases are the result of HIV transmission from an infected mother to her infant before or at the time of birth, or through breast-feeding.)

Who (Living HIV Disease Cases)

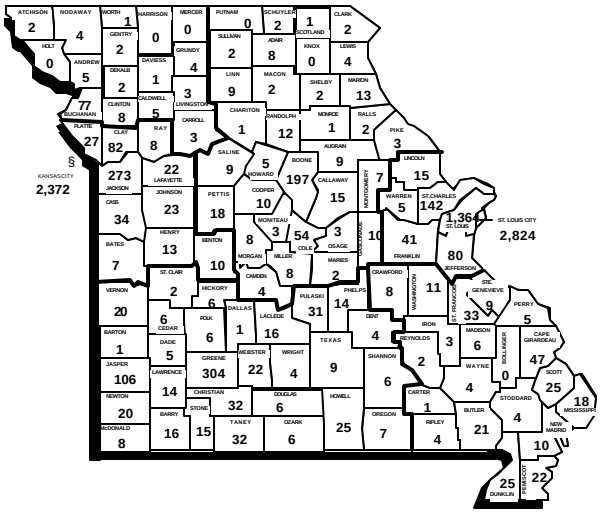
- At the end of 2003, of the 14,759* HIV Disease cases that had been reported to the Missouri Department of Health and Senior Services since 1982, 5,346* (36.2%) were known to have died and 9,413* (63.8%) were currently living. Table 3 describes the 9,413 living HIV Disease cases by gender and race/ethnicity.
- Figure 12 depicts the 8,887* currently living HIV Disease cases (does not include persons living in correctional facilities) by county of residence at the time of diagnosis (which may or may not be the current location of residence).
- Table 4 describes living HIV Disease cases (3,193) that were enrolled in case management and could be matched to the Missouri HIV/AIDS Reporting System (HARS) at the end of 2003**.

Table 3. Living HIV-Diagnosed Persons (HIV and AIDS Cases) Who Were Residents of Missouri at the Time of Diagnosis, and Who Were Reported Through 2003, by Gender and Race/Ethnicity

Gender		
Male	7,944	84.4%
Female	1,469	15.6%
Race/Ethnicity		
White	5,182	55.1%
Black	3,910	41.5%
Hispanic	221	2.3%
Asian/Pacific Islander	31	0.3%
American Indian	30	0.3%
Unknown	39	0.4%
Race/Ethnicity and Gender		
White Male	4,645	49.3%
Black Male	3,021	32.1%
Hispanic Male	195	2.1%
Asian/Pacific Islander Male	23	0.2%
American Indian Male	29	0.3%
Unknown Male	31	0.3%
White Female	537	5.7%
Black Female	889	9.4%
Hispanic Female	26	0.3%
Asian/Pacific Islander Female	8	0.1%
American Indian Female	1	0.0%
Unknown Female	8	0.1%
Total Living HIV-Diagnosed Persons	**9,413***	**99.9%****

***Includes persons living in state correctional facilities.**
****Percentage total does not equal 100 due to rounding.**

Figure 12. Living HIV-Diagnosed Persons (HIV and AIDS Cases), Reported Through 2003, by Missouri County of Residence† at Time of Diagnosis



† Does not include persons living in correctional facilities at the time of diagnosis.

§ All cases within the city limits of Kansas City are included in the totals for Kansas City. Cases indicated in Jackson, Clay and Platte counties are outside the city limits of Kansas City.

Table 4. Living HIV-Diagnosed Persons (HIV and AIDS cases) Enrolled in HIV Case Management as of December 31, 2003, by Gender and Race/Ethnicity

Gender		
Male	2,557	80.1%
Female	636	19.9%
Race/Ethnicity		
White	1,696	53.1%
Black	1,393	43.6%
Hispanic	77	2.4%
Asian/Pacific Islander	10	0.3%
American Indian	8	0.3%
Unknown	9	0.3%
Race/Ethnicity and Gender		
White Male	1,476	46.2%
Black Male	992	31.1%
Hispanic Male	66	2.1%
Asian/Pacific Islander Male	8	0.3%
American Indian Male	8	0.3%
Unknown Male	7	0.2%
White Female	220	6.9%
Black Female	401	12.6%
Hispanic Female	11	0.3%
Asian/Pacific Islander Female	2	0.1%
American Indian Female	0	0.0%
Unknown Female	2	0.1%
Total Living HIV-Diagnosed Persons	**3,193**	**100.2%***

***Percentage total does not equal 100 due to rounding.**

* Numbers are not adjusted for 2003 delayed reporting.

**This total does not include 833 persons in the case management database that could not, for various reasons, be matched to persons in HARS.

Where

- Table 5 summarizes all HIV and AIDS cases (living and deceased) and case rates by geographic area for 2003 (incidence) and cumulative. The highest rates of HIV and AIDS cases in the first set of selected geographic areas for 2003 and cumulative were in St. Louis City, followed by Kansas City, St. Louis County, and Outstate Missouri.
- Of the 385 HIV cases diagnosed in Missouri residents in 2003 (adjusted for delayed reporting):
  - 158 (41%) were from St. Louis City; the rate was 45.4 cases per 100,000 population
  - 42 (10.9%) were from St. Louis County; the rate was 4.1
  - 78 (20.3%) were from Kansas City; the rate was 17.7
  - 76 (19.7%) were from Outstate Missouri; the rate was 2.0
  - 31 (8.1%) were in persons in Missouri Correctional Facilities at the time of diagnosis
- Of the 125 initially diagnosed AIDS cases in Missouri residents in 2003:
  - 29 (23.2%) were from St. Louis City; the rate was 8.3 cases per 100,000 population
  - 14 (11.2%) were from St. Louis County; the rate was 1.4
  - 26 (20.8%) were from Kansas City; the rate was 5.9
  - 50 (40%) were from Outstate Missouri; the rate was 1.3
  - 6 (4.8%) were in persons in Missouri Correctional Facilities at the time of diagnosis
- In the selected geographic areas listed on Table 5, the cumulative (includes living and deceased cases) case rate for HIV cases was the highest in St. Louis City (425.1) followed by Kansas City (271.5). These case rates were above the state case rate (88.3). The cumulative AIDS case rate was also highest in St. Louis City (816.8) followed by Kansas City (613.5). Again, these case rates were higher than the state case rate (177.0).
- Regionally, the highest rates of newly diagnosed HIV cases for 2003 were in St. Louis (10.3), followed by Kansas City (8.0), Southwest (2.8), North Central (2.2), Southeast (2.1) and Northwest (0.4). In terms of initially diagnosed AIDS cases, Kansas City had the highest rate (2.9) followed by St. Louis (2.4). The highest HIV and AIDS cumulative case rates were in the Kansas City Region (124.5 and 285.2, respectively), followed by St. Louis (115.4 and 235.6, respectively) and Southwest (42.0 and 76.2, respectively).

Table 5. HIV and AIDS Cases and Rates by Geographic Area, Missouri
Diagnosed 2003 and Cumulative Through December 2003*

Geographic Area	HIV Cases						AIDS Cases					
	Diagnosed 2003**			Cumulative			Diagnosed 2003**			Cumulative		
	Cases	%	Rate	Cases	%	Rate	Cases	%	Rate	Cases	%	Rate
Location												
St. Louis City†	158	41.0%	45.4	1,480	30.0%	425.1	29	23.2%	8.3	2,844	28.7%	816.8
St. Louis County†	42	10.9%	4.1	683	13.8%	67.2	14	11.2%	1.4	1,518	15.3%	149.4
Kansas City†	78	20.3%	17.7	1,199	24.3%	271.5	26	20.8%	5.9	2,709	27.3%	613.5
Outstate†	76	19.7%	2.0	1,223	24.8%	32.3	50	40.0%	1.3	2,573	26.0%	67.9
Missouri Correctional Facilities††	31	8.1%	N/A	353	7.1%	N/A	6	4.8%	N/A	261	2.6%	N/A
Total	385	100.0%	6.9	4,938	100.0%	88.3	125	100.0%	2.2	9,905	99.9%	177.0
HIV Region												
St. Louis HIV Region†	207	53.8%	10.3	2,312	46.8%	115.4	48	38.4%	2.4	4,720	47.7%	235.6
Kansas City HIV Region†	92	23.9%	8.0	1,438	29.1%	124.5	34	27.2%	2.9	3,294	33.3%	285.2
Northwest HIV Region†	1	0.3%	0.4	49	1.0%	20.3	0	0.0%	0.0	156	1.6%	64.8
North Central HIV Region†	16	4.2%	2.2	215	4.4%	30.2	13	10.4%	1.8	427	4.3%	60.0
Southwest HIV Region†	28	7.3%	2.8	423	8.6%	42.0	19	15.2%	1.9	767	7.7%	76.2
Southeast HIV Region†	10	2.6%	2.1	148	3.0%	31.0	5	4.0%	1.0	280	2.8%	58.6
Missouri Correctional Facilities††	31	8.1%	N/A	353	7.1%	N/A	6	4.8%	N/A	261	2.6%	N/A
MISSOURI	385	100.2%	6.9	4,938	100.0%	88.3	125	100.0%	2.2	9,905	100.0%	177.0

*Includes living and deceased cases. Rates are per 100,000 population based on 2000 U.S. Census. Percentage totals may not equal 100 due to rounding.

**HIV cases diagnosed and reported to the state during 2003 which remained HIV cases at the end of that year. Number of cases are adjusted to compensate for delayed reporting for 2003.

† Does not include persons living in correctional facilities at the time of diagnosis

†† Includes state, county, and local correctional facilities.

HIV Disease Epi Profile Summary: Missouri

- Table 6 provides information on 2003 HIV case numbers and rates by race/ethnicity and selected areas. In each of the areas, the case rate in Blacks was substantially higher than in Whites. In St. Louis City, it was 57.8 in Blacks and 32.8 in Whites, almost twice (1.8) as high. In Kansas City, the case rate was 33.9 for Blacks and 11.5 in Whites, three times higher. Case rates for Hispanics were 14.2 in St. Louis City and 13.7 in St. Louis County. No newly diagnosed cases were reported among Hispanics in Kansas City.

Table 6. Diagnosed HIV Cases and Rates by Race/Ethnicity and Area, Missouri 2003

Area	White, Non-Hispanic			Black, Non-Hispanic			Hispanic			Total		
	Cases	%	Rate*	Cases	%	Rate*	Cases	%	Rate*	Cases**	%	Rate*
St. Louis City†	50	31.6%	32.8	103	65.2%	57.8	1	0.6%	14.2	158	100.0%	45.4
St. Louis County†	13	31.0%	1.7	25	59.5%	12.9	2	4.8%	13.7	42	100.0%	4.1
Kansas City†	31	39.7%	11.5	46	59.0%	33.9	0	0.0%	0.0	78	100.0%	17.7
Outstate Missouri†	57	75.0%	1.6	19	25.0%	15.6	0	0.0%	0.0	76	100.0%	2.0
MO Correctional Facilities††	10	32.3%	N/A	20	64.5%	N/A	0	0.0%	N/A	31	100.0%	N/A
MISSOURI	161	41.8%	3.4	213	55.3%	33.8	3	0.8%	2.5	385**	100.0%	6.9

*Per 100,000 population and is based on 2000 U.S. Census Bureau data.
**Includes Other/Unknown racial/ethnic cases not listed here. Numbers are adjusted to compensate for delayed reporting.
†Does not include persons living in correctional facilities at the time of diagnosis.
††Includes state, county, and local correctional facilities.
Note: Row percentages are shown.

- Figure 13 depicts cumulative reported HIV cases by county; at least one HIV case has been reported from 97 (85.1%) of Missouri's 114 counties. Figure 14 depicts cumulative reported AIDS cases by county; at least one AIDS case has been reported in 105 (92.1%) of the state's 114 counties. Only 5 (4.4%) Missouri counties have no reported HIV or AIDS cases.

Figure 13. Reported HIV Cases by County of Residence at Time of Diagnosis†

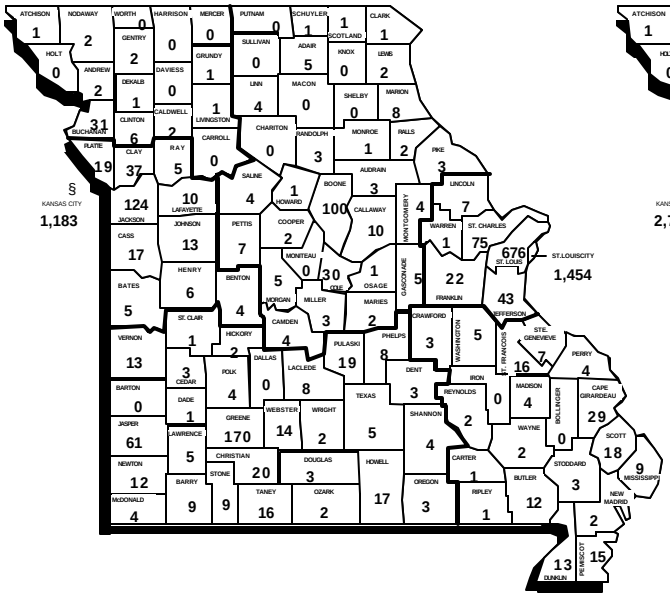
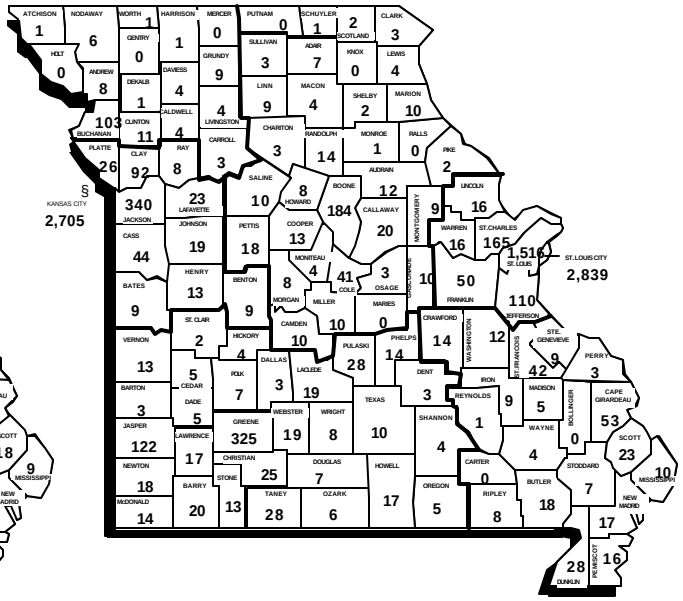


Figure 14. Reported AIDS Cases by County of Residence at Time of Diagnosis†



† Does not include persons living in correctional facilities at the time of diagnosis.
§ All cases within the city limits of Kansas City are included in the totals for Kansas City. Cases indicated in Jackson, Clay and Platte counties are outside the city limits of Kansas City.

- Table 7 provides information on 2003 HIV cases and rates by race/ethnicity and HIV regions. Except for the Northwest Region, the case rate in Blacks was substantially higher than in Whites. In the St. Louis Region, it was 33.6 in Blacks and 4.6 in Whites, over seven times (7.3) higher. In the Kansas City Region, the case rate was 30.6 for Blacks and 4.5 in Whites, almost seven times (6.8) higher. Case rates for Hispanics were 10.3 in the St. Louis Region. No newly diagnosed cases among Hispanics were reported in Kansas City Region.

Table 7. Diagnosed HIV Cases and Rates by Race/Ethnicity and HIV Region, Missouri, 2003

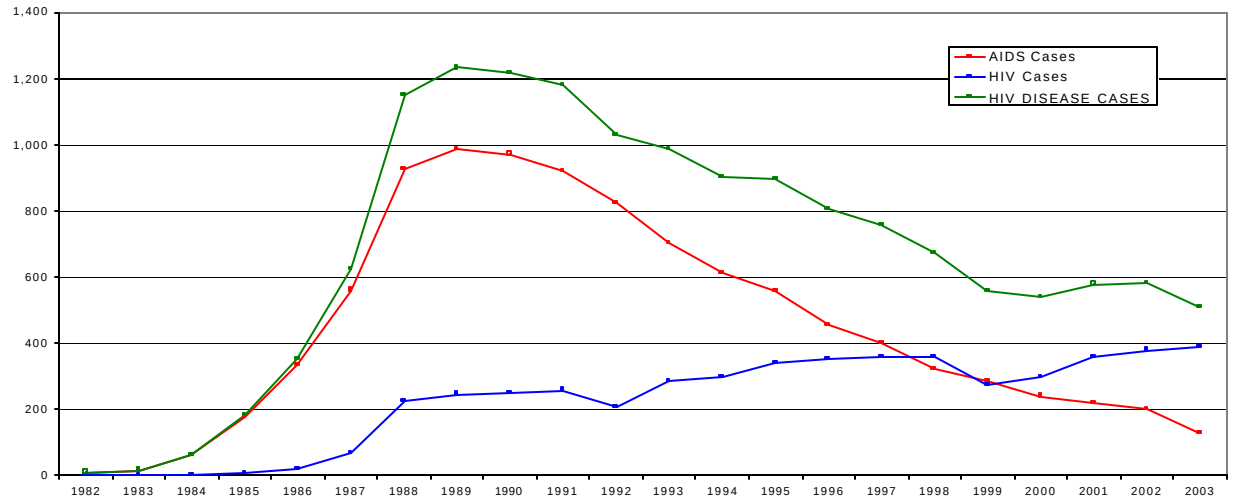
Area	White, Non-Hispanic			Black, Non-Hispanic			Hispanic			Total		
	Cases	%	Rate*	Cases	%	Rate*	Cases	%	Rate*	Cases	%	Rate*
St. Louis HIV Region†	71	34.3%	4.6	128	61.8%	33.6	3	1.4%	10.3	207	100.0%	10.3
Kansas City HIV Region†	41	44.6%	4.5	50	54.3%	30.6	0	0.0%	0.0	92	100.0%	8.0
Northwest HIV Region†	1	100.0%	0.4	0	0.0%	0.0	0	0.0%	0.0	1	100.0%	0.4
North Central HIV Region†	8	50.0%	1.2	7	43.8%	20.0	0	0.0%	0.0	16	100.0%	2.2
Southwest HIV Region†	25	89.3%	2.7	3	10.7%	21.1	0	0.0%	0.0	28	100.0%	2.8
Southeast HIV Region†	5	50.0%	1.1	5	50.0%	19.1	0	0.0%	0.0	10	100.0%	2.1
MO Correctional Facilities††	10	32.3%	N/A	20	64.5%	N/A	0	0.0%	N/A	31	100.0%	N/A
MISSOURI	161	41.8%	3.4	213	55.3%	33.8	3	0.8%	2.5	385**	100.0%	6.9

*Per 100,000 population and are based on 2000 U.S. Census Bureau data.
**Includes Other/Unknown racial/ethnic cases not listed here. Numbers are adjusted to compensate for delayed reporting.
†Does not include persons living in correctional facilities at the time of diagnosis.
††Includes state, county, and local correctional facilities.
Note: Row percentages are shown.

Trends

- The 385* HIV cases diagnosed in Missouri residents in 2003 represent a slight increase (1.9%) over the 378 cases diagnosed in 2002. This increase continues an upward trend that resumed after a dip in the number of cases diagnosed in 1999 (Figure 15).
- The 125* AIDS cases diagnosed in Missouri residents in 2003 represents a 38.1% decrease from the 202 cases diagnosed in 2002.
- The number of diagnosed HIV cases in Missouri increased dramatically from 1986 to 1988 and have increased gradually since then, while the number of diagnosed AIDS cases peaked in 1989, and have been declining since. The numbers of cases for HIV and AIDS were approximately the same for the first time in the history of the epidemic from 1997 to 1999, with the number of HIV cases increasing in 2000. Since then, the trend has been downward.
- The total number of HIV Disease cases has, on the average, continued a downward trend since 1989, except for a few years with minor increases.

Figure 15. Reported HIV Disease Cases by Current Status and Year of Diagnosis,



*Numbers are adjusted to compensate for 2003 delayed reporting.

Men Who Have Sex With Men (MSM)

Magnitude of the Problem

- In Missouri, from the beginning of the HIV/AIDS epidemic through 2003, a total of 9,489 HIV Disease cases have been identified as occurring in MSM who deny injecting drug use and who were residents of Missouri at the time of diagnosis (these cases make up 63.9% of all diagnosed HIV Disease cases statewide). Of these 9,489 MSM HIV Disease cases, 2,773 (29.2%) were HIV cases and 6,716 (70.8%) were AIDS cases.
- The 2,773 HIV cases in MSM comprised 56.2% of all diagnosed HIV cases reported to the state. In 2003, of the 385 adult/adolescent HIV cases diagnosed, at least 154 (39.9%) had, to date, been identified as being in MSM.
- The 6,716 AIDS cases in MSM comprised 67.8% of all diagnosed AIDS cases. In 2003, of the 125 AIDS cases diagnosed, 59 (47.2%) had, to date, been identified as being in MSM.
- These numbers, however, do not indicate the full extent of MSM involvement since in 2003 for 45 (36%) AIDS cases, and 156 (40.5%) HIV cases, the specific exposure category had not yet been determined. These cases are, in general, still under investigation and are currently reflected in the "Other/Unknown" exposure category.

Who

- Table 8 below depicts the incidence and prevalence* of diagnosed HIV and AIDS cases with reported mode of transmission as MSM, stratified by race/ethnicity and adjusted for delayed reporting.
- Of the newly diagnosed HIV Disease cases for 2003, 55.8% of the HIV cases and 59.3% of the AIDS cases were in White males. A little less than 40% of HIV cases and 39% of the AIDS cases were among Black males.
- Of the 2,673 living HIV cases among MSM, 61.3% were White males, 34.7% were Black males, and 2.8% were Hispanic males. Of the 2,994 living AIDS cases among MSM, 63.7% were White males and 33.8% were Black males.
- The Other/Unknown category was comprised of cases within the American Indian and Asian populations, and those cases of unknown race/ethnicity.

Table 8. Incidence and Prevalence of HIV and AIDS Cases in Men Who Have Sex With Men by

	HIV Cases*				AIDS Cases			
	Incidence		Prevalence		Incidence**		Prevalence	
Race/Ethnicity	**Cases**	**%**	**Cases**	**%**	**Cases**	**%**	**Cases**	**%**
White	86	(55.8%)	1,639	(61.3%)	35	(59.3%)	1,906	(63.7%)
Black	61	(39.6%)	928	(34.7%)	23	(39.0%)	1,011	(33.8%)
Hispanic	3	(1.9%)	74	(2.8%)	0	(0.0%)	60	(2.0%)
Other/Unknown	4	(2.6%)	32	(1.2%)	1	(1.7%)	17	(0.6%)
Total* **	**154**	**(99.9%)**	**2,673**	**(100.0%)**	**59**	**(100.0%)**	**2,994**	**(100.1%)**

* HIV cases diagnosed during 2003 which remained HIV cases at the end of that year. **Does not include HIV cases that progressed to AIDS.

- Table 9 reflects living HIV cases in MSM by race/ethnicity and age group for 2003. Among White MSM, the largest proportion of reported HIV cases (42.6%) were in men 30-39 years of age at the time of initial diagnosis. Among Black and Hispanic MSM, the largest proportion of cases (33.2% and 37.8%, respectively) were in this same age bracket. As of 2003, there were over twice as many living HIV-diagnosed Black male MSM teenagers (57) than White male MSM teenagers (25).
- Information obtained through interviews with MSM HIV and AIDS cases and reported to the Missouri Department of Health and Senior Services indicated that on average at least 24% of these men (19% of White men and 37% of Black men) have, in addition to having sex with other men, also had sex with females. (Note that the actual percentages may be higher because complete information may not have been obtained on all reported cases.)

*For a definition of prevalence, see "What's New for 2003" in the "Guidelines for Interpreting the 2003 *Epidemiologic Profiles* of HIV Disease and STDs in Missouri" section of the profile.

Table 9. HIV Prevalence in Men Who Have Sex With Men by Race/Ethnicity and Age Group, Missouri 2003

	White		Black		Hispanic		Totals*	
Age Group	**Cases**	**%****	**Cases**	**%****	**Cases**	**%****	**Cases**	**%*****
13–19	25	(1.5%)	57	(6.1%)	2	(2.7%)	86	(3.2%)
20–24	206	(12.6%)	208	(22.4%)	10	(13.5%)	429	(16.0%)
25-29	379	(23.1%)	208	(22.4%)	20	(27.0%)	611	(22.9%)
30–39	698	(42.6%)	308	(33.2%)	28	(37.8%)	1,047	(39.2%)
40–49	257	(15.7%)	117	(12.6%)	12	(16.2%)	393	(14.7%)
50-64	71	(4.3%)	29	(3.1%)	2	(2.7%)	103	(3.9%)
65+	3	(0.2%)	1	(.1%)	0	(0.0%)	4	(0.2%)
Missouri Total****	**1,639**	**(100.0%)**	**928**	**(99.9%)**	**74**	**(99.9%)**	**2,673**	**(100.1%)**

*Row totals and percentages include Other/Unknown cases not listed in columns. Totals include Missouri Correctional cases. **Percentage of Race/ Ethnicity in each age group. ***Percentage of cases per age group. ****Total percentages do not equal 100 due to rounding.

Where

- Table 10 is a breakdown of HIV cases in living MSM by race/ethnicity and geographic area for 2003. Of the total MSM cases reported from St. Louis City, St. Louis County, Kansas City, and Outstate Missouri, White males comprised the highest percentages at 53.2%, 58.1%, 57.7%, and 90.8%, respectively. However, 71.4% of MSM in Missouri Correctional Facilities diagnosed with HIV were Black males.
- Of the living HIV cases in MSM, 33.2% were living in St. Louis City, 25.9% in Kansas City, 20.4% in Outstate Missouri, and 15.5% in St. Louis County at the time of diagnosis. Kansas City had the highest percentage of MSM Hispanic males.
- Of the 2,673 total living HIV cases diagnosed in MSM just over half, or 1,372 (51.3%), were from the St. Louis HIV Region and 809 (30.3%) from the Kansas City HIV Region. The total numbers of cases reported from the Outstate HIV Regions were: Southwest 181 cases; North Central 98 cases; Southeast 54 cases; and Northwest 26 cases. In addition, 133 HIV cases in MSM had been reported from persons residing in Missouri correctional facilities at the time of diagnosis.

Table 10. HIV Prevalence in Men Who Have Sex With Men by Race/Ethnicity and Geographic Area, Missouri 2003

	White		Black		Hispanic		Total*	
Geographic Area	**Cases**	**%****	**Cases**	**%****	**Cases**	**%****	**Cases**	**%*****
St. Louis City	472	(53.2%)	393	(44.3%)	15	(1.7%)	888	(33.2%)
St. Louis County	241	(58.1%)	157	(37.8%)	12	(2.9%)	415	(15.5%)
Kansas City	405	(57.7%)	243	(34.6%)	35	(5.0%)	693	(25.9%)
Outstate	486	(90.8%)	40	(7.5%)	9	(1.7%)	544	(20.4%)
Missouri Correctional Facilities	35	(26.3%)	95	(71.4%)	3	(2.2%)	133	(5.0%)
Missouri Total	**1,639**	**(61.3%)**	**928**	**(34.7%)**	**74**	**(2.7%)**	**2,673**	**(100.0%)**
HIV Region								
St. Louis Region	776	(56.6%)	553	(40.3%)	28	(2.0%)	1,372	(51.3%)
Kansas City Region	509	(62.9%)	249	(30.8%)	38	(4.7%)	809	(30.3%)
Northwest Region	25	(96.2%)	1	(3.8%)	0	(0.0%)	26	(1.0%)
North Central Region	74	(75.5%)	20	(20.4%)	2	(2.0%)	98	(3.7%)
Southwest Region	172	(95.0%)	5	(2.8%)	2	(1.1%)	181	(6.8%)
Southeast Region	48	(88.9%)	5	(9.3%)	1	(1.9%)	54	(2.0%)
Missouri Correctional Facilities	35	(26.3%)	95	(71.4%)	3	(2.3%)	133	(5.0%)
Missouri Total****	**1,639**	**(61.3%)**	**928**	**(34.7%)**	**74**	**(2.8%)**	**2,673**	**(100.1%)**

*Row totals and percentages include Other/Unknown cases not listed in columns. **Percentage of Race/Ethnicity in each region. ***Percentage of cases per area/region. ****Total percentage does not equal 100 due to rounding.

Men Who Have Sex With Men and Inject Drugs (MSM/IDU)

Magnitude of the Problem

- In Missouri, from the beginning of the HIV/AIDS epidemic (1982) through 2003, a total of 1,089 HIV Disease cases have been identified as occurring in MSM/IDUs who were residents of Missouri at the time of diagnosis (these cases make up 7.3% of all diagnosed HIV Disease cases statewide). Of these 1,089 MSM/IDU HIV Disease cases, 832 (76.4%) were AIDS cases and 257 (23.6%) were HIV cases.
- The 832 AIDS cases in MSM/IDUs make up 8.4% of all diagnosed AIDS cases. In 2003, of the 125 AIDS cases diagnosed, 1 (0.8%) had, to date, been identified as being in MSM/IDUs.
- The 257 HIV cases in MSM/IDUs made up 5.2% of all diagnosed HIV cases. In 2003, of the 385 HIV cases diagnosed, 3 (0.8%) had, to date, been identified as being in MSM/IDUs.
- These numbers, however, do not indicate the full extent of MSM involvement since in 2003 for 45 (36%) AIDS cases, and 156 (40.5%) HIV cases, the specific exposure category had not yet been determined. These cases are, in general, still under investigation and are currently in the "Other/Unknown" exposure category.

Who

- Table 11 depicts the incidence and prevalence of diagnosed HIV and AIDS cases in MSM/IDUs by race/ethnicity. These numbers were not adjusted for delayed reporting because they were so low that the adjustment process would not change their whole number value.
- Of the newly diagnosed HIV Disease cases for 2003, 33.3% of the HIV cases and 100% of the AIDS cases were in White males. Over two-thirds (66.7%) of the HIV cases and none of the AIDS cases were among Black males.
- Of the 245 currently living HIV cases among MSM/IDUs, 62.5% were White males, 33.3% were Black males, and 2.5% were Hispanic males. Of the 382 living AIDS cases among MSM/IDUs, 61.8% were White males and 35.9% were Black males.
- The Other/Unknown category is comprised of cases within the American Indian and Asian populations, and those cases of unknown race/ethnicity.

Table 11. HIV and AIDS Incidence and Prevalence in Men Who Have Sex With Men and Inject Drugs by Race/Ethnicity, Missouri 2003

	HIV Cases*				AIDS Cases			
	Incidence		Prevalence		Incidence**		Prevalence	
Race/Ethnicity	Case	%	Case	%	Case	%	Case	%
White	1	(33.3%)	155	(63.3%)	1	(100.0%)	236	(61.8%)
Black	2	(66.7%)	80	(32.7%)	0	(0.0%)	137	(35.9%)
Hispanic	0	(0.0%)	6	(2.5%)	0	(0.0%)	6	(1.6%)
Other/Unknown	0	(0.0%)	4	(1.6%)	0	(0.0%)	3	(0.8%)
Total* **	**3**	**(100.0%)**	**245**	**(100.1%)**	**1**	**(100.0%)**	**382**	**(100.1%)**

*HIV cases diagnosed during 2003 which remained HIV cases at the end of that year. **Does not include HIV cases that progressed to AIDS.
***Totals include Missouri Correctional cases. Column total percentage does not equal 100 due to rounding.

- Table 12 depicts HIV cases in MSM/IDUs by race/ethnicity and age group. Among both White and Black MSM/IDUs, the largest proportion of diagnosed HIV cases (44% and 40%, respectively) were in men 30-39 years of age at the time of initial diagnosis.
- Information obtained through interviews with MSM/IDU HIV and AIDS cases reported to the Missouri Department of Health and Senior Services indicated that on the average at least 44% of these men (40% of White men and 53% of Black men) had, in addition to having sex with other men, also had sex with females. (Note that the actual percentages may be higher because complete information may not have been obtained on all reported cases).

Table 12. HIV Prevalence in Men Who Have Sex With Men and Inject Drugs by Race/Ethnicity and Age Group, Missouri 2003

	White		Black		Total*	
Age Group	**Cases**	**%****	**Cases**	**%****	**Cases**	**%*****
13–19	8	(5.3%)	4	(5.0%)	13	(5.4%)
20-24	18	(12.0%)	9	(11.3%)	29	(12.1%)
25–29	35	(23.3%)	16	(20.0%)	53	(22.1%)
30–39	66	(44.0%)	32	(40.0%)	101	(42.1%)
40–49	22	(14.7%)	18	(22.5%)	42	(17.5%)
50-64	1	(0.7%)	1	(1.3%)	2	(0.8%)
Missouri Total	**150**	**(100.0%)**	**80**	**(100.1%)**	**240**	**(100.0%)**

*Row totals and percentages include Other/Unknown cases not listed in columns. Totals include Missouri Correctional cases.
**Percentages of Race/Ethnicity in each age group. ***Percentage of cases per age group.

Where

- Table 13 depicts HIV cases in MSM/IDUs by race/ethnicity and geographic area. Of the total MSM/IDU cases diagnosed that lived in St. Louis City, St. Louis County, Kansas City, and Outstate Missouri at the time of their diagnosis, Blacks made up 67.4%, 30.8%, 23%, and 9.6%, respectively. In addition, of the 34 MSM/IDU HIV cases diagnosed in Missouri correctional facilities, 61.8% were in Black males.
- Of total living HIV cases in MSM/IDUs, 30.8% were living in Kansas City, 30.4% in the Outstate areas, 19.2% in St. Louis City and 14.2% in Missouri Correctional Facilities at the time of diagnosis.
- Of the 240 total HIV cases diagnosed in MSM/IDUs, 64 (26.7%) were from the St. Louis HIV Region and 90 (37.5%) from the Kansas City HIV Region. The total numbers of cases diagnosed that lived in the Outstate HIV Regions at the time of their diagnosis were: Southwest, 28 cases; Southeast, 9 cases; North Central, 10 cases; and Northwest, 5 cases. In addition, 34 HIV cases in MSM/IDUs had been reported from persons residing in Missouri Correctional Facilities at the time of diagnosis.

Table 13. HIV Prevalence in Men Who Have Sex With Men and Inject Drugs by Race/Ethnicity and Geographic Area, Missouri 2003

	White		Black		Hispanic		Total*	
Geographic Area	**Cases**	**%****	**Cases**	**%****	**Cases**	**%****	**Cases**	**%*****
St. Louis City	13	(28.3%)	31	(67.4%)	1	(2.2%)	46	(19.2%)
St. Louis County	9	(69.2%)	4	(30.8%)	0	(0.0%)	13	(5.4%)
Kansas City	52	(70.3%)	17	(23.0%)	4	(5.4%)	74	(30.8%)
Outstate	63	(86.3%)	7	(9.6%)	1	(1.4%)	73	(30.4%)
Missouri Correctional Facilities	13	(38.2%)	21	(61.8%)	0	(0.0%)	34	(14.2%)
Missouri Total	**150**	**(62.5%)**	**80**	**(33.3%)**	**6**	**(2.5%)**	**240**	**(100.0%)**
HIV Region								
St. Louis Region	26	(40.6%)	36	(56.3%)	1	(1.6%)	64	(26.7%)
Kansas City Region	67	(74.4%)	18	(20.0%)	4	(4.4%)	90	(37.5%)
Northwest Region	4	(80.0%)	0	(0.0%)	0	(0.0%)	5	(2.1%)
North Central Region	8	(80.0%)	1	(11.1%)	0	(0.0%)	10	(4.2%)
Southwest Region	24	(85.7%)	2	(7.1%)	1	(3.6%)	28	(11.7%)
Southeast Region	8	(88.9%)	1	(11.1%)	0	(0.0%)	9	(3.8%)
Missouri Correctional Facilities	13	(38.2%)	21	(61.8%)	0	(0.0%)	34	(14.2%)
Missouri Total	**150**	**(62.5%)**	**80**	**(33.3%)**	**6**	**(2.5%)**	**240**	**(100.2%)**

*Row totals and percentages include Other/Unknown cases not listed in columns. Total percentages may not equal 100 due to rounding.
**Percentage of Race/Ethnicity in each region. ***Percentage of cases per area/region.

Injecting Drug Users (IDUs)

Magnitude of the Problem

- In Missouri, from the beginning of the HIV/AIDS epidemic (1982) through 2003, a total of 1,127 HIV Disease cases had been identified as occurring in IDUs who were residents of Missouri at the time of diagnosis (these cases comprised 7.6% of all diagnosed HIV Disease cases statewide). Of these 1,127 IDU HIV Disease cases, 736 (65.3%) were AIDS cases and 391 (34.7%) were HIV cases.
- The 736 AIDS cases in IDUs made up 7.4% of all diagnosed AIDS cases. In 2003, of the 125 AIDS cases reported, six (4.8%) had, to date, been identified as being in IDUs.
- The 391 HIV cases in IDUs make up 7.9% of diagnosed HIV cases. In 2003, of the 385 HIV cases reported, 17 (4.4%) had, to date, been identified as being in IDUs.
- These numbers, however, do not indicate the full extent of IDUs involvement since for 45 AIDS cases, and 156 HIV cases, the specific exposure category had not yet been determined. These cases were, in general, still under investigation and are currently in the "Other/Unknown" exposure category.

Who

- Table 14 depicts the incidence and prevalence of diagnosed HIV and AIDS cases in MSM/IDUs by race/ethnicity. These numbers were not adjusted for delayed reporting because they were so low that the adjustment process would not change their whole number value.
- Of the newly diagnosed HIV Disease cases for 2003, 41.2% of the HIV cases and 50% of the AIDS cases were in Whites. Almost 60% (58.8%) of the HIV cases and 50% of the AIDS cases were among Blacks.
- Of the 362 living HIV cases among MSM/IDUs, 50% were Whites, 46.4% were Blacks, and 2.5% were Hispanics. Of the 384 currently living AIDS cases among MSM/IDUs, 43.2% were Whites, 52.1% were Blacks and 4.7% were Hispanics.
- The Other/Unknown category is comprised of cases within the American Indian and Asian populations, and those cases of unknown race/ethnicity.

Table 14. Incidence and Prevalence of HIV and AIDS Cases in Injecting Drug Users by Race/Ethnicity, Missouri 2003

	HIV Cases*				AIDS Cases**			
	Incidence		Prevalence		Incidence		Prevalence	
Race/Ethnicity	Case	%	Case	%	Case	%	Case	%
White	7	(41.2%)	181	(50.0%)	3	(50.0%)	166	(43.2%)
Black	10	(58.8%)	168	(46.4%)	3	(50.0%)	200	(52.1%)
Hispanic	0	(0.0%)	9	(2.5%)	0	(0.0%)	18	(4.7%)
Other/Unknown	0	(0.0%)	4	(1.1%)	0	(0.0%)	0	(0.0%)
Total* **	**17**	**(100.0%)**	**362**	**(100.0%)**	**6**	**(100.0%)**	**384**	**(100.0%)**

*HIV cases diagnosed during 2003 which remained HIV cases at the end of that year. **Does not include HIV cases that progressed to AIDS.
***Totals include Missouri Correctional cases.

- Table 15 depicts living HIV cases in IDUs by race/ethnicity and age group. For all IDUs, among Whites, Blacks and Hispanics, the largest proportion of reported HIV cases (42.5%, 48.8%, and 66.7%, respectively) were in persons 30-39 years of age at the time of initial diagnosis. The next highest percentage for Whites was the 25-29 (28.2%) year old age group, but for Blacks the next highest percentage was among the 40-49 (23.8%) year old age group.

Table 15. HIV Prevalence in Injecting Drug Users by Race/Ethnicity and Age Group, Missouri 2003

	White		Black		Hispanic		Total*	
Age Group	Cases	%**	Cases	%**	Cases	%**	Cases	%***
13–19	10	(5.5%)	5	(3.0%)	0	(0.0%)	15	(4.1%)
20-24	16	(8.8%)	11	(6.5%)	0	(0.0%)	29	(8.0%)
25–29	51	(28.2%)	23	(13.7%)	1	(11.1%)	76	(21.0%)
30–39	77	(42.5%)	82	(48.8%)	6	(66.7%)	166	(45.9%)
40–49	22	(12.2%)	40	(23.8%)	1	(11.1%)	63	(17.4%)
50-64	5	(2.8%)	6	(3.6%)	1	(11.1%)	12	(3.3%)
65+	0	(0.0%)	1	(0.6%)	0	(0.0%)	1	(0.3%)
Missouri Total	**181**	**(100.0%)**	**168**	**(100.0%)**	**9**	**(100.0%)**	**362**	**(100.0%)**

*Row totals and percentages include Other/Unknown cases not listed in columns. Totals include Missouri Correctional cases.
**Percentages of Race/Ethnicity in each age group. ***Percentage of cases per age group.

Where

- Table 16 depicts living HIV cases in IDUs by race/ethnicity and geographic area. Of total IDU cases reported from St. Louis City, St. Louis County, Kansas City, and Outstate Missouri, Blacks made up 80.7%, 68.2%, 59.4%, and 5.3%, respectively. In addition, of the 75 IDU HIV cases reported from Missouri correctional facilities, 52% were in Blacks.
- Of the total HIV cases in IDUs, 48.1% were in persons living in either St. Louis City, St. Louis County, or Kansas City at the time of diagnosis. However, 31.2% were living in the Outstate Region in comparison to 22.9% for St. Louis City, 6.1% for St. Louis County, and 19.1% for Kansas City. While 24.9% of White IDU HIV cases, 73.2% of Black IDU cases and 55.6% of Hispanic IDU cases lived in these three metropolitan areas of Missouri. Almost 60% of the White IDU HIV cases came from rural areas. (According to 2000 population estimates, approximately 32% of Missouri's total population, 25% of the state's White population, 81% of the Black population, and 44% of the Hispanic population resided in either St. Louis City, St. Louis County, or Kansas City.)
- Of the 362 total HIV cases diagnosed in IDUs, 118 (32.6%) were from the St. Louis HIV Region and 87 (24%) were from the Kansas City HIV Region. The total numbers of cases from the Outstate HIV Regions were: Southwest, 47 cases; North Central, 20 cases; Southeast, 11 cases; and Northwest, 4 cases. In addition, 75 HIV cases in IDUs had been reported from persons residing in Missouri Correctional Facilities at the time of diagnosis.

Table 16. HIV Prevalence in Injecting Drug Users by Race/Ethnicity and Geographic Area, Missouri 2003

	White		Black		Hispanic		Total*	
Geographic Area	Cases	%**	Cases	%**	Cases	%**	Cases	%***
St. Louis City	16	(19.3%)	67	(80.7%)	0	(0.0%)	83	(22.9%)
St. Louis County	6	(27.3%)	15	(68.2%)	0	(0.0%)	22	(6.1%)
Kansas City	23	(33.3%)	41	(59.4%)	5	(7.2%)	69	(19.1%)
Outstate	103	(91.2%)	6	(5.3%)	3	(2.7%)	113	(31.2%)
Missouri Correctional Facilities	33	(44.0%)	39	(52.0%)	1	(1.3%)	75	(20.7%)
Missouri Total	**181**	**(48.3%)**	**168**	**(48.1%)**	**9**	**(2.5%)**	**362**	**(100.0%)**
HIV Region								
St. Louis Region	35	(29.%)	82	(69.5%)	0	(0.0%)	118	(32.6%)
Kansas City Region	39	(44.8%)	42	(48.3%)	6	(6.9%)	87	(24.0%)
Northwest Region	4	(100.0%)	0	(0.0%)	0	(0.0%)	4	(1.1%)
North Central Region	19	(95.0%)	1	(5.0%)	0	(0.0%)	20	(5.5%)
Southwest Region	42	(89.4%)	2	(4.3%)	2	(4.3%)	47	(13.0%)
Southeast Region	9	(81.9%)	2	(18.2%)	0	(0.0%)	11	(3.0%)
Missouri Correctional Facilities	33	(44.0%)	39	(52.0%)	1	(1.3%)	75	(20.7%)
Missouri Total	**181**	**(50.0%)**	**168**	**(46.4%)**	**9**	**(2.5%)**	**362**	**(99.9%)**

*Row totals and percentages include Other/Unknown cases not listed in columns. Percentage totals do not equal 100 due to rounding. **Percentages of Race/Ethnicity in each region.
***Percentage of cases per area/region.

Heterosexual Contacts

Magnitude of the Problem

- In Missouri, from the beginning of the HIV/AIDS epidemic (1982) through 2003, a total of 1,775 HIV Disease cases had been identified as occurring in heterosexual contacts who were residents of Missouri at the time of diagnosis (these cases made up 12% of all diagnosed HIV Disease cases statewide). Of these 1,775 heterosexual contact HIV Disease cases, 939 (52.9%) were classified as AIDS cases and 836 (47.1%) were classified as HIV cases.
- The 939 AIDS cases in heterosexual contacts comprised 9.5% of all diagnosed AIDS cases. In 2003, of the 125 AIDS cases reported, 10 (8%) had, to date, been identified as being in heterosexual contacts.
- The 836 HIV cases in heterosexual contacts made up 16.9% of all diagnosed HIV cases. In 2003, of the 385 adult/adolescent HIV cases reported, 57 (14.8%) had, to date, been identified as being in heterosexual contacts.
- These numbers, however, do not indicate the full extent of heterosexual contact involvement since for 45 AIDS cases, and 56 HIV cases, the specific exposure category had not yet been determined. These cases are, in general, still under investigation and are currently in the "Other/Unknown" exposure category.

Who

- Table 17 depicts diagnosed HIV and AIDS incidence and prevalence in cases with reported mode of transmission as heterosexual contact, stratified by race/ethnicity and gender, and adjusted for delayed reporting.
- Of the 57 HIV cases diagnosed in 2003 with the mode of transmission reported as heterosexual contact, 29, or 50.9%, were in Black females. White females comprise 22.8% of the new cases, followed by Black males (14%) and White males (12.3%). No new cases were reported in Hispanics or any other racial/ethnic group with heterosexual contact as the mode of transmission.
- Of the 814 living HIV cases at the end of December 2003 with the mode of transmission reported as heterosexual contact, 354, or 43.5%, were in Black females. White females comprised 26.7% of living cases, followed by Black males (19%) and White males (8.6%).
- There were 10 new AIDS cases diagnosed in 2003 with the mode of transmission reported as heterosexual contact. Of this group, 70% were in Black females and 10% in Black males. Together, Blacks comprised 80% of the new AIDS cases with the mode of transmission reported as heterosexual contact.
- Of the 627 living AIDS cases at the end of December 2003 with the mode of transmission reported as heterosexual contact, 274 (43.7%) were in Black females and 132 (21.1%) were in Black males. Black males and females together comprised 64.8% of these cases. White females comprised 23.3% of these cases with White males at 8.8%.

Table 17. HIV and AIDS Incidence and Prevalence in Heterosexual Contacts by Race/Ethnicity and Gender, Missouri 2003

	HIV Cases*				AIDS Cases			
	Incidence		Prevalence		Incidence**		Prevalence	
Race/Ethnicity and Gender	Case	%	Case	%	Case	%	Case	%
White Males	7	(12.3%)	70	(8.6%)	1	(10.0%)	55	(8.8%)
Black Males	8	(14.0%)	155	(19.0%)	1	(10.0%)	132	(21.1%)
Hispanic Males	0	(0.0%)	1	(0.1%)	0	(0.0%)	5	(0.8%)
White Female	13	(22.8%)	217	(26.7%)	1	(10.0%)	146	(23.3%)
Black Female	29	(50.9%)	354	(43.5%)	7	(70.0%)	274	(43.7%)
Hispanic Female	0	(0.0%)	7	(0.9%)	0	(0.0%)	7	(1.1%)
Other/Unknown	0	(0.0)	10	(1.2%)	0	(0.0%)	8	(1.3%)
Total* **	**57**	**(100.0%)**	**814**	**(100.0%)**	**10**	**(100.0%)**	**627**	**(100.1%)**

*HIV cases reported during 2003 which remained HIV cases at the end of that year. **Does not include HIV cases that progressed to AIDS. ***Totals include Missouri Correctional cases. Column total percentage does not equal 100 due to rounding.

•Table 18 depicts diagnosed HIV prevalence in cases with reported mode of transmission as heterosexual contact, stratified by race/ethnicity, gender, and age group. Among Black males, the largest proportion of diagnosed HIV cases (36.1%) were in persons 30-39, followed by 21.9% in the 25-29 year old age group at the time of initial diagnosis. However, combining the 20-24 and 25-29 age groups resulted in 40% for the 10 year age group.

• Among Black females, the largest proportion of cases was also in the 30-39 year old age group (33.3%). However, there were equal numbers of cases in the 20-24 and 25-29 year old age groups with 19.8% each. And, the 13-19 year old age group was similar at 13.8%. If the 20-24 and 25-29 year old age groups were combined, the total was 39.6%, which made it the largest 10 year age group.

• Combining the 20-24 and 25-29 year old age groups accounted for 30% of the cases among White males. The next largest proportion of reported HIV cases (28.6%) were in persons 30-39 and 40-49 years of age at the time of initial diagnosis.

• Among White female heterosexual HIV cases, the 20-24 and 25-29 age groups contained 46% of all the cases, 25.3% and 20.7%, respectively.

Table 18. HIV Prevalence in Heterosexual Contacts by Race/Ethnicity, Gender, and Age Group, Missouri 2003

	White Males		Black Males		White Females		Black Females		Total*	
Age Group	**Cases**	**%****	**Cases**	**%****	**Cases**	**%****	**Cases**	**%****	**Cases**	**%*****
13–19	1	(1.4%)	8	(5.2%)	21	(9.7%)	49	(13.8%)	80	(9.8%)
20-24	10	(14.3%)	28	(18.1%)	55	(25.3%)	70	(19.8%)	169	(20.8%)
25–29	11	(15.7%)	34	(21.9%)	45	(20.7%)	70	(19.8%)	161	(19.8%)
30–39	20	(28.6%)	56	(36.1%)	61	(28.1%)	118	(33.3%)	261	(32.1%)
40–49	20	(28.6%)	20	(12.9%)	23	(10.6%)	39	(11.0%)	105	(12.9%)
50-64	6	(8.6%)	8	(5.2%)	12	(5.5%)	6	(1.7%)	33	(4.1%)
65+	2	(2.9%)	1	(0.7%)	0	(0.0%)	2	(0.6%)	5	(0.6)%
Missouri Total****	**70**	**(100.1%)**	**155**	**(100.1%)**	**217**	**(99.9%)**	**354**	**(100.0%)**	**814**	**(100.1%)**

*Row totals and percentages include Other/Unknown cases not listed in columns. Totals include Missouri Correctional cases.

**Percentages ofRace/Ethnicity in each age group. ***Percentage of cases per age group. ****Total percentages do not equal 100 due to rounding.

Where

• Table 19 depicts diagnosed HIV prevalence in heterosexual contacts by race/ethnicity and geographic area. Among the specific geographic areas, St. Louis City contained the greatest proportion of cases at 32.3%, followed by the Outstate area with 30.3%. In St. Louis City, 85.2% of the living HIV cases that reported heterosexual contact as their mode of transmission were Blacks, followed by 71% of this population in St. Louis County and 65.2% in Kansas City. In addition, of the 42 heterosexual contact HIV cases reported from Missouri Correctional Facilities, 85.7% were in Blacks.

• The Outstate area had the highest proportion of Whites in this category with 70%, followed by Kansas City with 29.9% and St. Louis County with 25.8%.

• Of the 814 total HIV cases reported indicating heterosexual contact as the mode of transmission, 450 (55.3%) were from the St. Louis HIV Region and 137 (16.8%) from the Kansas City HIV Region. The total numbers of cases reported from the Outstate HIV Regions were: Southwest, 85 cases (10.4%); North Central, 50 cases (6.1%); Southeast, 39 cases (4.8%); and Northwest, 11 cases (1.4%). In addition, 42 HIV cases (5.2%), with heterosexual contact indicated as their mode of transmission, had been reported from persons residing in Missouri Correctional Facilities at the time of diagnosis.

• Blacks made up the highest proportion of HIV cases that reported heterosexual contact as their mode of transmission in the St. Louis Region at 75.3%, followed by the Kansas City Region (56.2%).

• The Southwest Region had the highest proportion of HIV cases among Whites at 75.3% followed by the Southeast Region (56.4%).

Table 19. HIV Prevalence in Heterosexual Contacts by Race/Ethnicity and Geographic Area, Missouri 2003

Geographic Area	White Cases	White %**	Black Cases	Black %**	Hispanic Cases	Hispanic %**	Total* Cases	Total %***
St. Louis City	36	(13.7%)	224	(85.2%)	0	(0.0%)	263	(32.3%)
St. Louis County	40	(25.8%)	110	(71.0%)	2	(1.3%)	155	(19.0%)
Kansas City	32	(29.9%)	70	(65.2%)	3	(2.8%)	107	(13.1%)
Outstate	173	(70.0%)	69	(27.9%)	3	(1.2%)	247	(30.3%)
Missouri Correctional Facilities	6	(14.3%)	36	(85.7%)	0	(0.0%)	42	(5.2%)
Missouri Total**	**287**	**(35.3%)**	**509**	**(62.5%)**	**8**	**(1.0%)**	**814**	**(99.9%)**
HIV Region								
St. Louis Region	103	(22.9%)	339	(75.3%)	2	(0.4%)	450	(55.3%)
Kansas City Region	54	(39.4%)	77	(56.2%)	4	(2.9%)	137	(16.8%)
Northwest Region	7	(63.6%)	4	(36.4%)	0	(0.0%)	11	(1.4%)
North Central Region	31	(62.0%)	18	(3.6%)	0	(0.0%)	50	(6.1%)
Southwest Region	64	(75.3%)	18	(21.4%)	2	(2.4%)	85	(10.4%)
Southeast Region	22	(56.4%)	17	(45.0%)	0	(0.0%)	39	(4.8%)
Missouri Correctional Facilities	6	(14.3%)	36	(85.7%)	0	(0.0%)	42	(5.2%)
Missouri Total	**287**	**(35.3%)**	**509**	**(62.5%)**	**8**	**(1.0%)**	**814**	**(100.0%)**

*Row totals and percentages include Other/Unknown cases not listed in columns. **Percentage of Race/Ethnicity in each region.
***Percentage of cases per area/region. ****Total percentage does not equal 100 due to rounding.

- Table 20 below depicts the cumulative number of deaths* among people with HIV and the mode of transmission reported by them, stratified by race/ethnicity and gender. Overall, individuals who indicated MSM as their mode of transmission had the highest proportion of deaths with 50.5% followed by IV drug use at 14.6%.
- Among MSM, White males comprised the largest proportion (57%) of deaths and Black males comprised 43%.
- Among individuals who reported heterosexual contact as their mode or transmission, 45.5% of the deaths had been in Black males, 29% in White males and 18.2% in both Black and White females.

Table 20. Deaths Among HIV and AIDS Cases by Mode of Transmission, Missouri 1982- 2003

Mode of Transmission	White Males Cases	White Males %	Black Males Cases	Black Males %	White Females Cases	White Females %	Black Females Cases	Black Females %	Total Cases	Total %
MSM	57	(57.0%)	43	(43.0%)	0	(0.0%)	0	(0.0%)	100	(50.5%)
MSM/IDU	13	(14.5%)	4	(23.5%)	0	(0.0%)	0	(0.0%)	17	(8.6%)
IV Drug User	10	(15.9%)	7	(24.1%)	1	(3.4%)	10	(34.5%)	29	(14.6%)
Heterosexual Contact	2	(29.0%)	10	(45.5%)	4	(18.2%)	4	(18.2%)	22	(11.1%)
No Indicated Risk (NIR)	10	(27.5%)	9	(34.6%)	3	(11.5%)	2	(7.7%)	26	(13.1%)
Missouri Totals*	**95**	**(48.0%)**	**73**	**(36.9%)**	**9**	**(4.5%)**	**16**	**(8.1%)**	**198**	**(99.9%)****

*Totals (numbers and percentages) contain 4 cases (2%) with a mode of transmission not indicated on table, such as, hemophilia/coagulation disorder, blood transfusion or tissue recipient, etc. **Total percentage does not equal 100 due to rounding.

*The numbers indicated in Table 20 reflect deaths reported to the Missouri Department of Health and Senior Services HIV Office of Surveillance and entered into the HARS data system. Cause of death is unknown and therefore may be unrelated to HIV Disease.

- Table 21 below depicts the cumulative number of deaths* among people with AIDS and the mode of transmission stratified by race/ethnicity and gender. Overall, individuals who indicated MSM as their mode of transmission had the highest proportion of deaths with 72.4%, followed at a distant second by MSM/IV drug use, with 8.7%.
- Among MSM, White males comprised the largest proportion (73.1%) of deaths with Black males next highest at 24.5%.
- Among individuals who reported heterosexual contact as their mode or transmission, 38.8% of the deaths had been in Black females and 33.3% were White females.
- Among Black males, the largest proportion of deaths (32.1%) occurred among persons with IV drug use as their mode of transmission.

Table 21. Deaths Among AIDS Cases by Mode of Transmission, Missouri 1982- 2003

	White Males		Black Males		White Females		Black Females		Total*	
Mode of Transmission	**Cases**	**%**	**Cases**	**%**	**Cases**	**%**	**Cases**	**%**	**Cases**	**%**
MSM	2,722	(73.1%)	913	(24.5%)	0	(0.0%)	0	(0.0%)	3,724	(72.4%)
MSM/IDU	308	(68.4%)	131	(29.1%)	0	(0.0%)	0	(0.0%)	450	(8.7%)
IV Drug User	115	(32.7%)	113	(32.1%)	50	(14.2%)	61	(17.3%)	352	(6.8%)
Heterosexual Contact	49	(15.7%)	34	(10.9%)	104	(33.3%)	121	(38.8%)	312	(6.1%)
No Indicated Risk (NIR)	44	(58.7%)	19	(25.7%)	3	(4.0%)	5	(6.8%)	75	(1.4%)
Missouri Total*	**3,386**	**(65.8%)**	**1,234**	**(24.0%)**	**192**	**(3.7%)**	**208**	**(4.0%)**	**5,147**	**(99.9%)****

*Totals (numbers and percentages) contain 234 cases (4.5%) with a mode of transmission not indicated on table, such as, hemophilia/coagulation disorder, blood transfusion or tissue recipient, etc. **Total percentage does not equal 100 due to rounding.

*The numbers indicated in Table 21 reflect deaths reported to the Missouri Department of Health and Senior Services HIV Office of Surveillance and entered into the HARS data system. Cause of death is unknown and therefore may be unrelated to HIV Disease.

Gonorrhea

Magnitude of the Problem

- During 2003, 8,792 cases of gonorrhea were reported in Missouri; the corresponding case rate was 157.1*. This is a slight decrease from last years case rate of 160.0*. Missouri ranked ninth among the 50 states in gonorrhea rates in 2003**. Currently, the overall rate for Missouri is 8.3 times higher than the Healthy People 2010 national objective of 19.0 per 100,000 population.

Who

- Of the 8,792 gonorrhea cases reported in 2003, 48% were in males and 52% were in females. Among Blacks, a higher proportion of cases were reported in males (52.1%) than in females (47.9%). Among Whites, a much higher proportion of cases were reported in females (71.2%) than in males (28.8%).
- Of the 8,792 cases of gonorrhea reported in 2003, 5,965 (67.8%) were in Blacks and 1,271 (14.5%) in Whites. For 1,449 (16.5%) cases, race/ethnicity was not indicated, and there were 107 (1.2%) other race/ethnicity cases.
- Among reported gonorrhea cases, Blacks were disproportionately represented. Blacks in Missouri represent 11.2% of the total population. However, in 2003, 4.7 times as many cases were reported in Blacks compared to Whites. The rate of reported cases in Blacks (947.7) was 35.4 times higher than the rate in Whites (26.8) (Table 1).
- In 2003, a substantial proportion of reported gonorrhea cases were in the young adult and teenage age groups. Of all the cases, 2,405 (27.4%) were among individuals 20 to 24 years old with the second highest proportion 1,977 (22.5%) among the 15 to 19 age group (Figure 2). Among Black females, 37.4% of the cases were in the 15-19 age group and 34.6% were in the 20-24 age group. Among White females, 37.8% fell within the 20-24 age group with 34.6% in the 15-19 age group. Among Black males, 950 (30.7%) were in the 20-24 age group, with 559 (18%) in the 15-19 age group. And among White males, 132 (36.6%) of the cases were among individuals in the 20-24 age group and the second highest number, 59 (16.3%) occurred in individuals over 40 years old.

Where

- In 2003, of the 8,792 gonorrhea cases reported, 2,545 (28.9%) were from St. Louis City, 2,367 (26.9%) from Kansas City, 1,717 (19.5%) from St. Louis County, and 2,163 (24.6%) from the remainder of the state (Outstate Missouri). Cases were reported in 95 (83.3%) of the state's 114 counties and St. Louis City. Figure 1 shows the number of gonorrhea cases reported from each county in 2003.
- The highest rate of reported gonorrhea cases in 2003 was in St. Louis City (730.9), followed by Kansas City (536.2), St. Louis County (168.9), and Outstate Missouri (57.1).
- In the U.S., among selected cities with a population greater than 200,000, St. Louis City ranked first and Kansas City ranked seventh in 2003 for reported cases of gonorrhea.

Trends

- The annual number of reported cases of gonorrhea in Missouri has remained fairly stable during the past 8 years. The 8,792 gonorrhea cases in 2003 represents a decrease of 160 (1.8%) cases from the 8,952 cases in 2002 (Figure 3).
- From 2002 to 2003, reported cases of gonorrhea in St. Louis City decreased by 7% (from 2,737 to 2,545 cases); reported cases from St. Louis County decreased by 4.2% (from 1,793 to 1,717 cases); and Kansas City's cases decreased by 4.8% (from 2,486 to 2,367 cases). However, reported Outstate cases increased by 11.7% (from 1,936 to 2,163 cases).

*Cases per 100,000 population, based on 2000 U.S. Census data.
**2003 prelimanary rankings released by CDC April 2004. Final 2003 rankings will be available October 2004.

Table 1. Reported Gonorrhea Cases and Rates by Race and Geographic Area, Missouri 2003

	Cases	%	Rate*
Missouri			
Whites	1,271	14.5%	26.8
Blacks	5,965	67.8%	947.7
Other/Unknown	1,556	17.7%	--
Total Cases	**8,792**	**100.0%**	**157.1**
St. Louis City			
Whites	82	3.2%	53.7
Blacks	2,261	88.8%	1,268.3
Other/Unknown	202	7.9%	--
Total Cases	**2,545**	**99.9%**	**730.9**
St. Louis County			
Whites	71	4.1%	9.1
Blacks	1,149	66.9%	594.4
Other/Unknown	497	28.9%	--
Total Cases	**1,717**	**99.9%**	**168.9**
Kansas City			
Whites	215	9.1%	80.3
Blacks	1,780	75.2%	1,219.1
Other/Unknown	372	15.7%	--
Total Cases	**2,367**	**100.0%**	**536.2**
Outstate			
Whites	903	41.7%	25.5
Blacks	775	35.8%	646.1
Other/Unknown	485	22.4%	--
Total Cases	**2,163**	**99.9%**	**57.1**

*Per 100,000 population

Figure 1. Reported Gonorrhea Cases by County, Missouri 2003

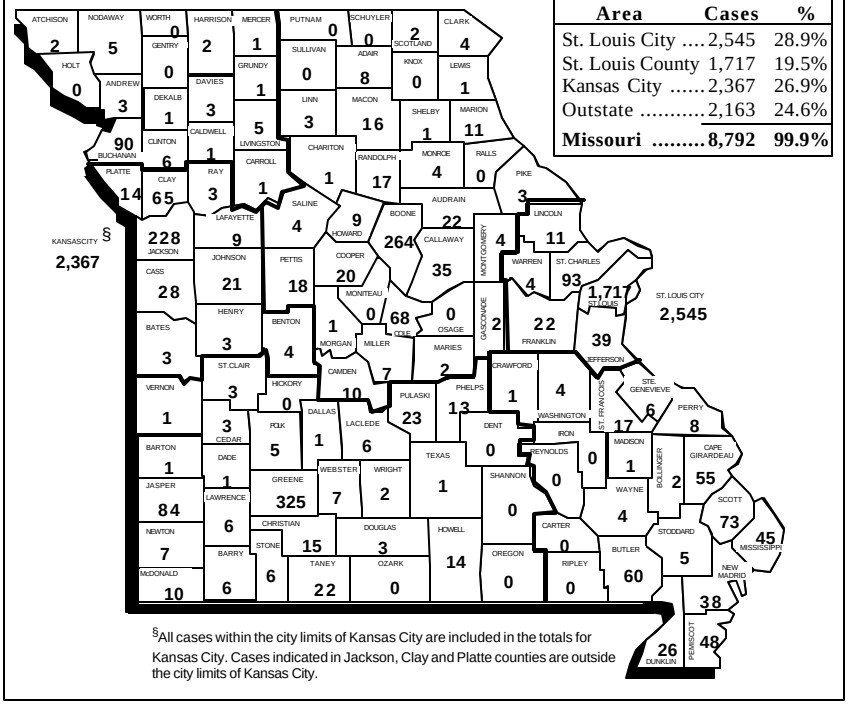
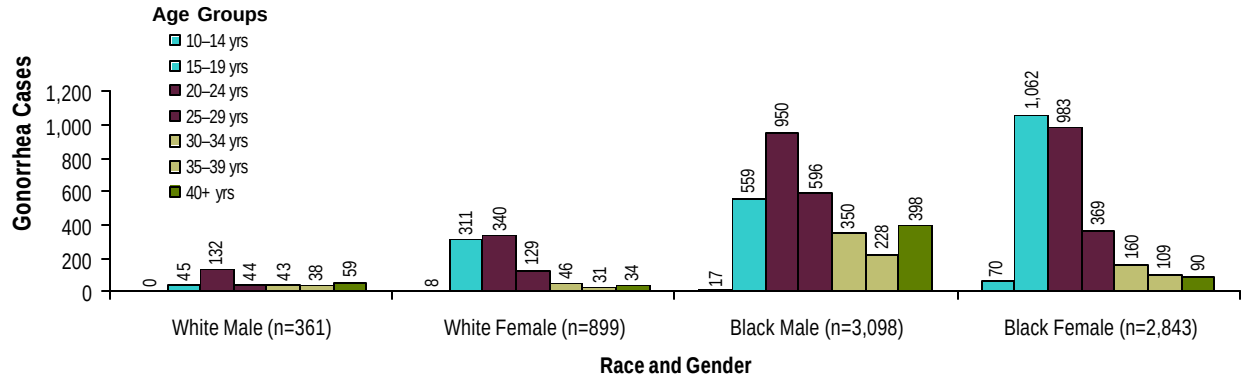
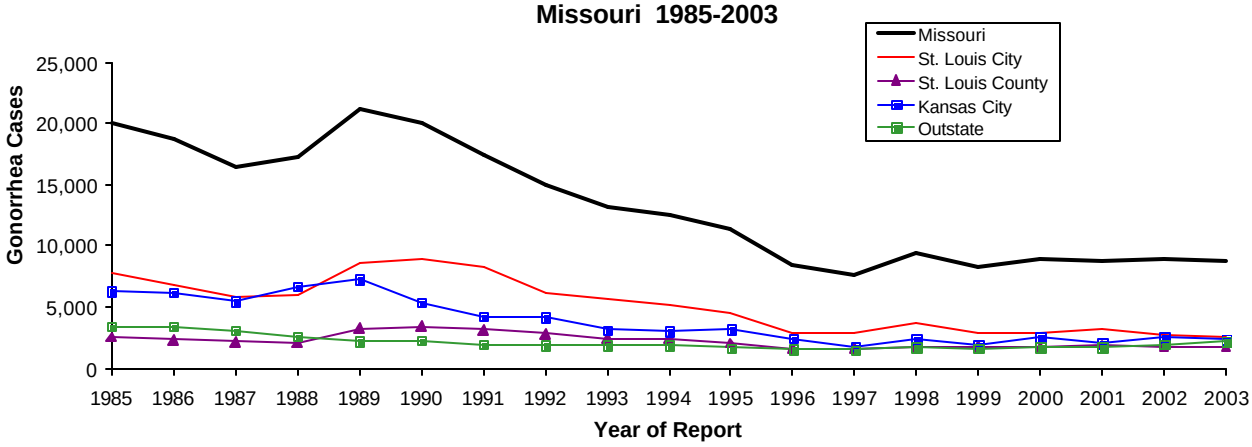


Figure 2. Reported Gonorrhea Cases by Race, Gender, and Age Group, Missouri 2003



Other/Unknown includes race/ethnicity, gender, and/or age (n=1,591)

Figure 3. Reported Gonorrhea Cases by Geographic Area and Year of Report, Missouri 1985-2003



Primary and Secondary (P&S) Syphilis

Magnitude of the problem

- During 2003, 61 cases of primary and secondary (P&S) syphilis were reported in Missouri; the corresponding case rate was 1.1 cases*. Missouri ranked 28th among the 50 states in case rates of reported P&S syphilis cases in 2003**. However, Missouri's 2003 case rate is 5.5 times higher than the national Healthy People 2010 objective of 0.2 per 100,000 population.

Who

- Of the 61 P&S syphilis cases reported in 2003, 67.2% were in males and 22.9% were in females, and 9.9% were Other/Unknown.
- Of the 61 cases of P&S syphilis reported in 2003, 29 (47.5%) were in Blacks, 26 (42.6%) in Whites, and 6 (9.8%) were classified as Other/Unknown (Table 1).
- While the percentage of cases is only slightly higher among Blacks than Whites, Blacks are disproportionately represented among reported P&S syphilis cases when evaluated by the case rates per 100,000 population. Blacks in Missouri represent 11.2% of the total population. The rate for cases reported in 2003 in Blacks (4.6) was a little over 9 times higher than the rate for cases in Whites (0.5) (Table 1).
- The cases of reported P&S Syphilis varied by age group depending on race and sex (Figure 2). Among White males 52.4% of the cases were among individuals age 40 and over. For White females, 60.0% of the cases were among individuals in the age group 30-34 years old. Among Black males, the largest proportion (45.0%) of the cases were in the 40-and-over age group. And among Black females, 66.7% of the cases were in the 40-and-over age group.

Where

- Of the 61 P&S syphilis cases reported in 2003, 18 (29.5%) were from St. Louis City, 18 (29.5%) from St. Louis County, 17 (27.9%) from Kansas City, and eight (13.1%) from Outstate Missouri. Cases were reported in only eight of the state's 114 counties and St. Louis City (Figure 1).
- Of the four designated areas, the highest rate of reported P&S syphilis cases in 2003 were in St. Louis City (5.2), followed by Kansas City (3.9), St. Louis County (1.8) and Outstate Missouri (0.2) (Table 1).

Trends

- Since 1993, when a syphilis outbreak in the St. Louis area was at its height, the annual number of reported cases of P&S syphilis in Missouri had been decreasing until 2002. The 34 cases reported in 2002 represented a 30.8% increase from the 26 cases reported in 2001 and the 61 cases reported in 2003 represent a 79.4% increase over 2002. Figure 3 shows the trends in reported P&S syphilis cases from 1985-2003 for Missouri, St. Louis City and County, Kansas City, and Outstate Missouri.
- From 2002 to 2003, cases of P&S syphilis increased by 38.5% (from 13 to 18 cases) in St. Louis City. Cases from St. Louis County increased significantly by 157.1% (from 7 to 18 cases); cases from Outstate Missouri increased by 14.3% (from 7 to 8 cases), and Kansas City cases increased by 142.8% (from 7 to 17 cases).
- The overall increase in the number of state cases and case rate from 2002 to 2003 was due to the increase of cases reported from St. Louis County, St. Louis City and Kansas City. The case rate per 100,000 population for 2003 was more than double that of 2002 for St. Louis County and Kansas City, and increased 40.5% in St. Louis City.

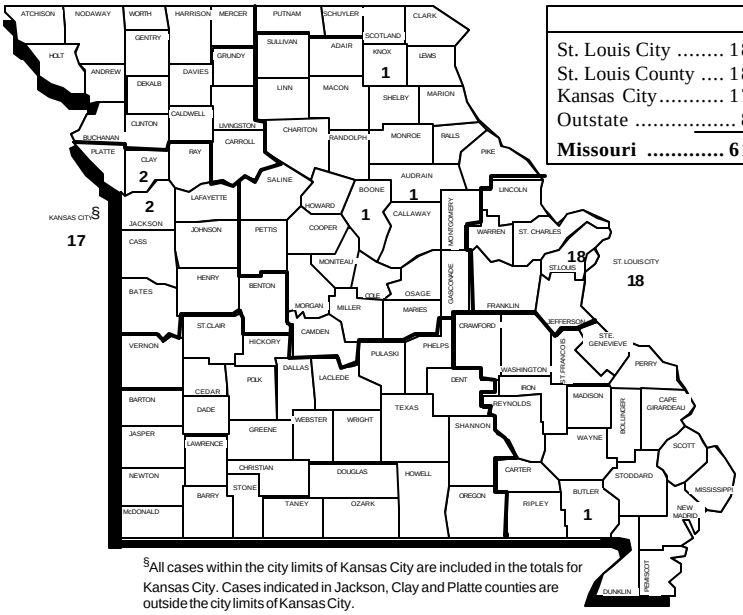
*Cases per 100,000 population, based on 2000 Census data. **2003 prelimanary rankings released by CDC April 2004. Final 2003 rankings will be available October 2004.

Table 1. Reported P&S Syphilis Cases and Rates by Race and Geographic Area, Missouri 2003

	Cases	%	Rate*
Missouri			
Whites	26	42.6%	0.5
Blacks	29	47.5%	4.6
Other/Unknown	6	9.8%	--
Total Cases	**61**	**99.9%**	**1.1**
St. Louis City			
Whites	7	38.9%	4.6
Blacks	11	61.1%	6.2
Other/Unknown	0	0.0%	--
Total Cases	**18**	**100.0%**	**5.2**
St. Louis County			
Whites	7	38.9%	0.9
Blacks	5	27.8%	2.6
Other/Unknown	6	33.3%	--
Total Cases	**18**	**100.0%**	**1.8**
Kansas City			
Whites	5	29.4%	1.9
Blacks	12	70.6%	8.6
Other/Unknown	0	0.0%	--
Total Cases	**17**	**100.0%**	**3.9**
Outstate			
Whites	7	87.5%	0.2
Blacks	1	12.5%	0.8
Other/Unknown	0	0.0%	--
Total Cases	**8**	**100.0%**	**0.2**

*Per 100,000 population

Figure 1. Reported P&S Syphilis Cases by County, Missouri 2003

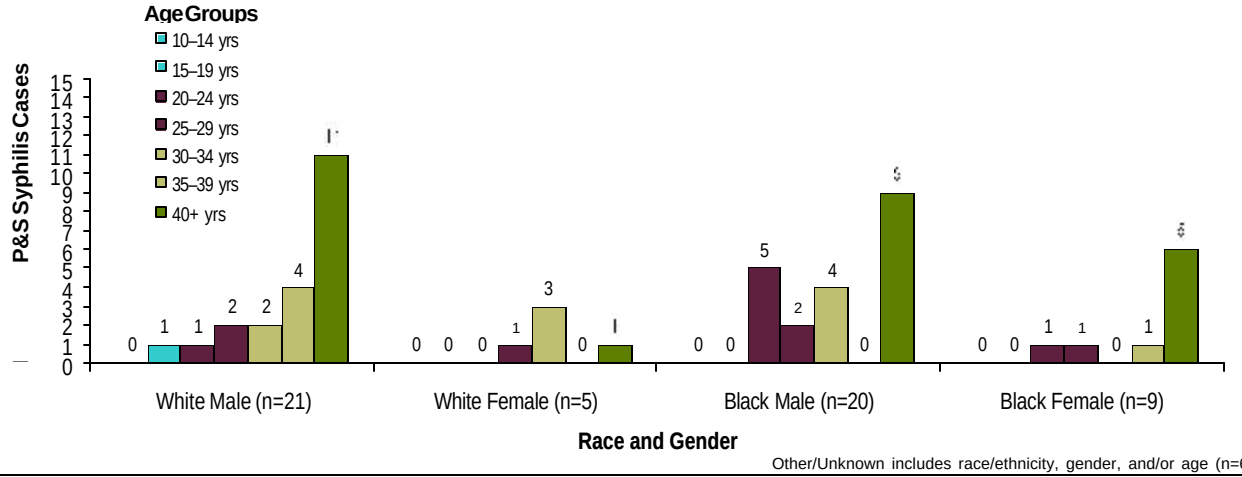


§All cases within the city limits of Kansas City are included in the totals for Kansas City. Cases indicated in Jackson, Clay and Platte counties are outside the city limits of Kansas City.

4 **Congenital Syphilis** cases were reported in 2003.

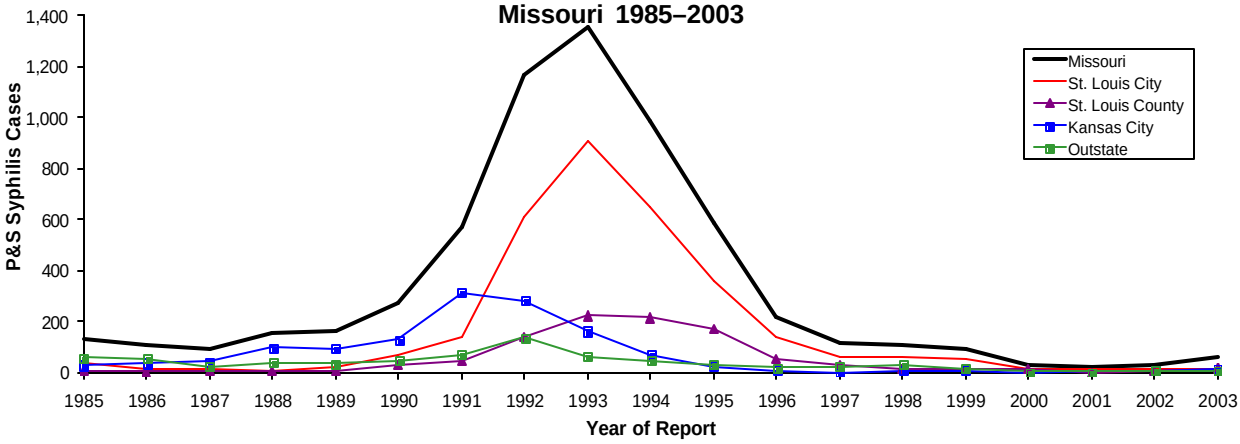
1 (25.0%) Clay County
1 (25.0%) Kansas City
1 (25.0%) St. Louis County
1 (25.0%) St. Louis City

Figure 2. Reported P&S Syphilis Cases by Race, Gender, and Age Group, Missouri 2003



Other/Unknown includes race/ethnicity, gender, and/or age (n=6)

Figure 3. Reported P&S Syphilis Cases by Geographic Area and Year of Report, Missouri 1985–2003



Early Latent Syphilis

Magnitude of the problem

- During 2003, 46 cases of early latent syphilis (asymptomatic syphilis of less than one year duration) were reported in Missouri with a corresponding case rate of 0.8*. Missouri ranked 46th among the fifty states in case rates of reported early latent syphilis cases in 2003**.
- Each identified early latent case represents a failure to identify a primary syphilis case in the primary stage when syphilis is most infectious.

Who

- Of the 46 early latent syphilis cases reported in 2003, 50.0% (23 cases) were in males, 41.3% (19 cases) were in females, and 8.7% (4 cases) were Other/Unknown. (Figure 2).
- Of the 46 cases of early latent syphilis reported in 2003, 27 (58.7%) were in Blacks, and 15 (32.6%) in Whites (Table 1).
- Blacks were disproportionately represented among reported early latent syphilis cases. Blacks in Missouri represent 11.2% of the total population. However, the rate for cases reported in 2003 in Blacks (4.3) was 14.3 times higher than the rate for cases in Whites (0.3).
- For reported cases of early latent syphilis in males during 2003, the largest proportion of cases (34.8%) were in the 40-and-over age group. For females, the largest proportion of cases (42.1%) was in the 40-and-over age group (Figure 2).

Where

- Of the 46 early latent syphilis cases reported in 2003, 15 (32.6%) were reported in Outstate Missouri, followed by 12 (26.1%) each in St. Louis City and Kansas City, and 7 (15.2%) in St. Louis County. Cases were reported in only 11 of the state's 114 counties and St. Louis City (Figure 1).
- The highest rate of reported early latent syphilis cases in 2003 was in St. Louis City (3.4), followed by Kansas City (2.7), St. Louis County (0.7), and Outstate Missouri (0.4) (Table 1).

Trends

- Since 1993, when a syphilis outbreak in the St. Louis area was at its height, the annual number of reported cases of early latent syphilis in Missouri decreased steadily until 2001. The 51 cases reported in 2002 represented a 54.5% increase from the 33 cases reported in 2001. However, the 46 cases reported in 2003 is a 9.8% decrease from 2002. Figure 3 shows the trends in reported early latent syphilis cases from 1992-2003 for Missouri, St. Louis City and County, Kansas City, and Outstate Missouri.
- From 2002 to 2003, reported cases of early latent syphilis decreased by 47.8% (from 23 to 12 cases) in St. Louis City; reported cases from St. Louis County decreased by 46.2% (from 13 to 7 cases); Kansas City cases increased by 71.4% (from 7 to 12 cases); and Outstate cases increased by 87.5% (from 8 to 15 cases). Even though the state has seen an overall decrease in cases reported for 2003, Kansas City and Outstate Missouri areas have experienced increases.

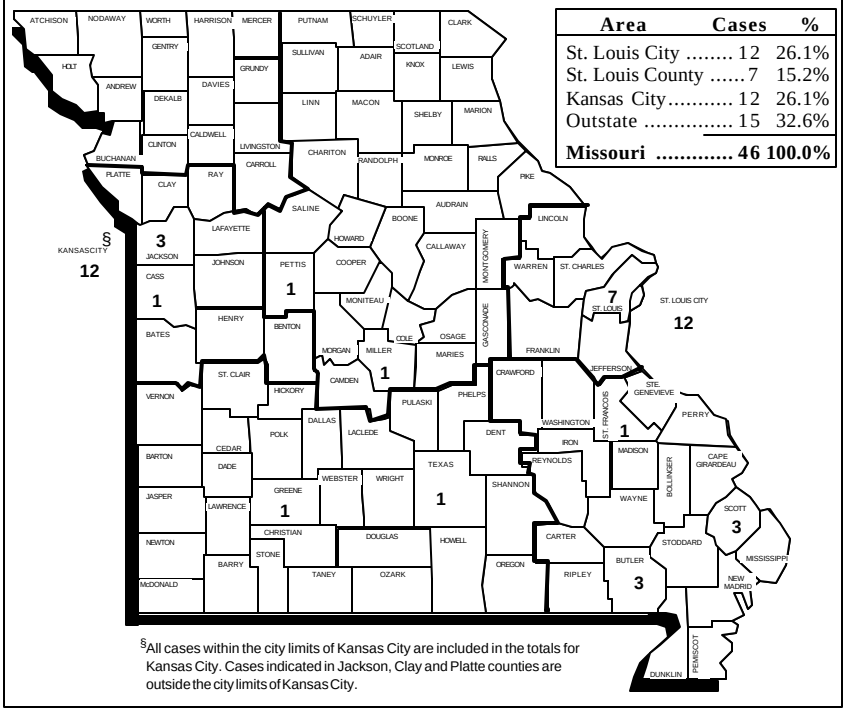
*Cases per 100,000 population, based on 2000 U.S. Census data.
**2003 prelimanary rankings released by CDC April 2004. Final 2003 rankings will be available October 2004.

Table 1. Reported Early Latent Syphilis Cases and Rates by Race and Geographic Area, Missouri 2003

	Cases	%	Rate*
Missouri			
Whites	15	32.6%	0.3
Blacks	27	58.7%	4.3
Other/Unknown	4	8.7%	--
Total Cases	**46**	**100.0%**	**0.8**
St. Louis City			
Whites	3	25.0%	2.0
Blacks	9	75.0%	5.0
Other/Unknown	0	0.0%	--
Total Cases	**12**	**100.0%**	**3.4**
St. Louis County			
Whites	1	14.3%	0.1
Blacks	6	85.7%	3.1
Other/Unknown	0	0.0%	--
Total Cases	**7**	**100.0%**	**0.7**
Kansas City			
Whites	5	41.7%	1.9
Blacks	3	25.0%	2.2
Other/Unknown	4	33.3%	--
Total Cases	**12**	**100.0%**	**2.7**
Outstate			
Whites	6	40.0%	0.2
Blacks	9	60.0%	7.5
Other/Unknown	0	0.0%	--
Total Cases	**15**	**100.0%**	**0.4**

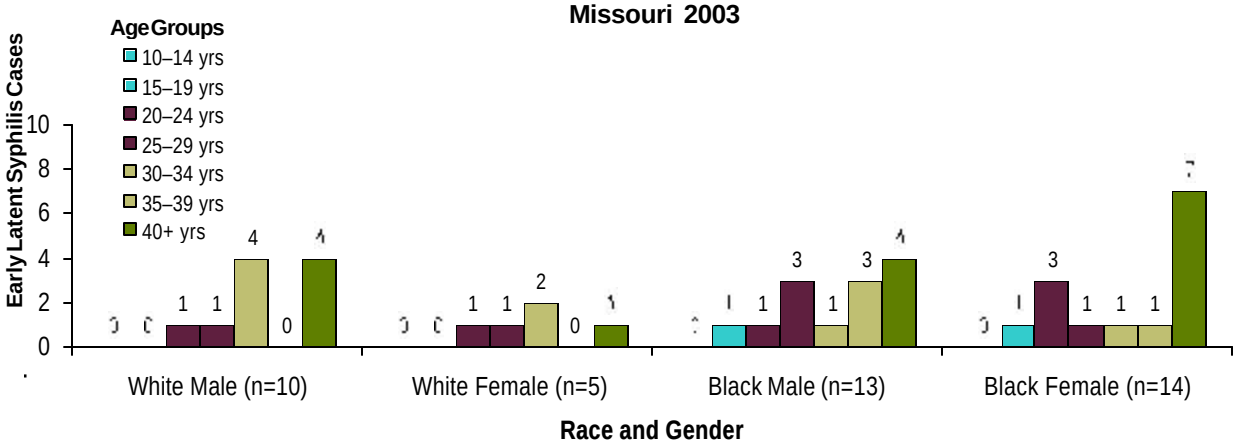
*Per 100,000 population

Figure 1. Reported Early Latent Syphilis Cases by County, Missouri 2003



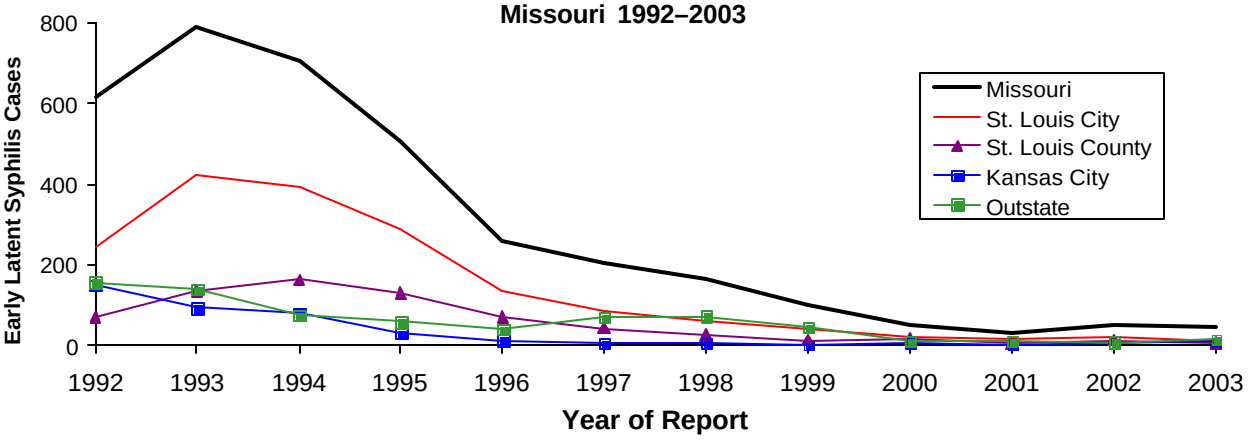
§All cases within the city limits of Kansas City are included in the totals for Kansas City. Cases indicated in Jackson, Clay and Platte counties are outside the city limits of Kansas City.

Figure 2. Reported Early Latent Syphilis Cases by Race, Gender, and Age Group, Missouri 2003



Other/Unknown includes race/ethnicity, gender, and/or age (n=4)

Figure 3. Reported Early Latent Syphilis Cases by Geographic Area and Year of Report, Missouri 1992–2003



Chlamydia

Magnitude of the problem

- During 2003, 18,570 cases of chlamydia were reported in Missouri with a corresponding case rate of 331.9 cases*. In 2003**, Missouri ranked 14th among the 50 states in rates of reported chlamydia cases.

Who

- Of the total chlamydia cases reported in 2003, the majority were in females (59.3%) versus males (16.5%). However, another 4,491 (24.2%) of the reported cases were classified as Other/Unknown.
- Of the 18,570 cases of chlamydia reported in 2003, 8,266 (44.5%) cases were in Blacks, 5,883 (31.7%) in Whites. There were 4,421 (23.8%) cases classified as Other/Unknown.
- Blacks were disproportionately represented among reported chlamydia cases in Missouri. Blacks in Missouri represent 11.2% of the total population. However, the rate for cases reported in 2003 in Blacks (1,313.3) was 10.6 times higher than the rate for cases in Whites (123.9).
- Table 1 shows the numbers and rates of reported chlamydia cases in Whites and Blacks for Missouri, St. Louis City and County, Kansas City, and Outstate Missouri.
- In 2003, 59.2% of reported chlamydia cases were in young adults (age 20-24; 29.7%) and teenagers (age 15-19; 29.5%). Individuals age 15-19 comprised 42.4% of Black female cases and 42.6% of White female cases. Individuals age 20-24 comprised 35.9% of Black female cases and 42.5% of White female cases.
- Among Black males, 37.4% of the cases reported were among individuals age 20 to 24 and 28% of the cases were among individuals age 15 to 19. Among White males, 46.9% of the cases were in individuals age 20 to 24 and 21.8% of the cases were in individuals age 15 to 19 (Figure 2).

Where

- Of the 18,570 chlamydia cases in 2003, the largest number, 8,113 (44.1%), were from Outstate Missouri followed by 3,720 (20%) from Kansas City, 3,502 (18.9%) from St. Louis City, and 3,235 (17.4%) from St. Louis County.
- The highest rate of cases in 2003 was in St. Louis City (1,005.8), followed by Kansas City (842.7), St. Louis County (318.3), and Outstate Missouri (214.1).
- Figure 1 shows the number of chlamydia cases in each county in 2003. Only two counties in Missouri did not report at least one chlamydia case in 2003.

Trends

- In 2003, the 18,570 cases of chlamydia represented a 14.8% increase from the 16,181 cases in 2002. Figure 3 indicates the trends in chlamydia cases from 1985-2003 for Missouri, St. Louis City and County, Kansas City, and Outstate Missouri. Overall, the State of Missouri has experienced a significant increase in the number of chlamydia cases since 2001.
- During 2002 many providers, including the Missouri State Public Health Laboratory, began using amplified testing methods that are much more sensitive and identified more positives tests. Also, the use of combination test kits for gonorrhea and chlamydia increased, therefore, identifying more male positives.
- From 2002 to 2003, reported cases of chlamydia in Kansas City increased by 26.4% (from 2,942 to 3,720 cases), Outstate Missouri cases increased by 15.3% (from 7,037 to 8,113 cases), St. Louis County cases increased by 7.8% (from 3,000 to 3,235 cases), and St. Louis City increased by 9.4% (from 3,202 to 3,502 cases).

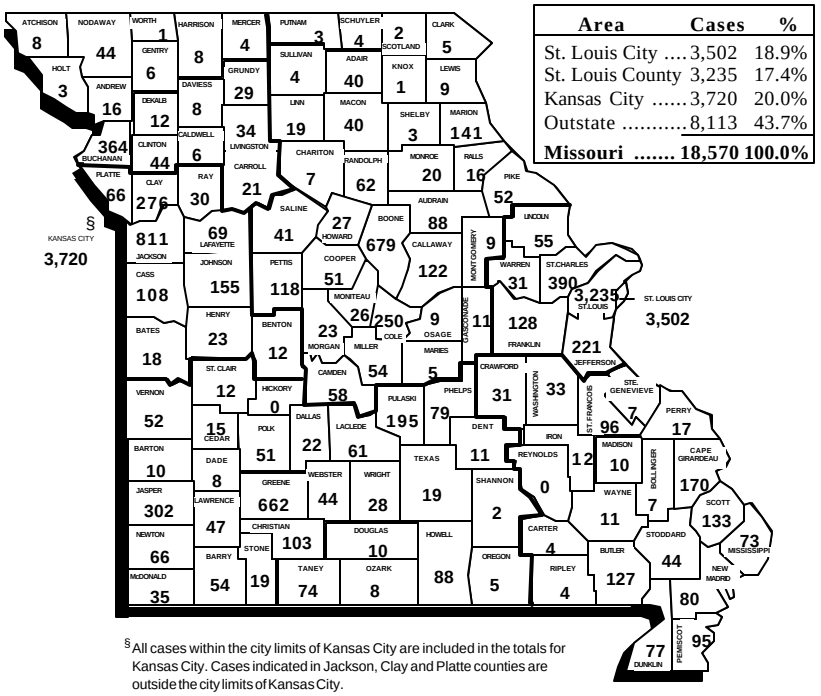
*Cases per 100,000 population, based on 2000 Census data.
**2003 prelimanary rankings released by CDC April 2004. Final 2003 rankings will be available October 2004.

Table 1. Reported Chlamydia Cases and Rates by Race and Geographic Area, Missouri 2003

	Cases	%	Rate*
Missouri			
Whites	5,883	31.7%	123.9
Blacks	8,266	44.5%	1,313.3
Other/Unknown	4,421	23.8%	--
Total Cases	**18,570**	**100.0%**	**331.9**
St. Louis City			
Whites	209	6.0%	136.9
Blacks	2,824	80.6%	1,584.1
Other/Unknown	469	13.4%	--
Total Cases	**3,502**	**100.0%**	**1,005.8**
St. Louis County			
Whites	333	10.3%	42.6
Blacks	1,694	52.4%	876.3
Other/Unknown	1,208	37.3%	--
Total Cases	**3,235**	**100.0%**	**318.3**
Kansas City			
Whites	523	14.1%	195.3
Blacks	2,312	62.2%	1,676.9
Other/Unknown	885	23.8%	--
Total Cases	**3,720**	**100.1%**	**842.7**
Outstate			
Whites	4,818	59.4%	135.8
Blacks	1,436	17.7%	1,197.2
Other/Unknown	1,859	22.9%	--
Total Cases	**8,113**	**100.0%**	**214.1**

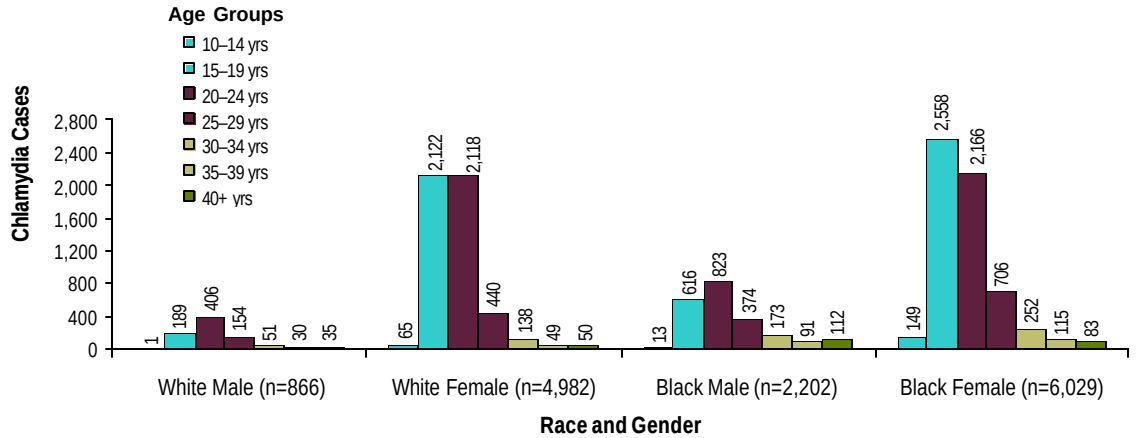
*Per 100,000 population

Figure 1. Reported Chlamydia Cases by County, Missouri 2003



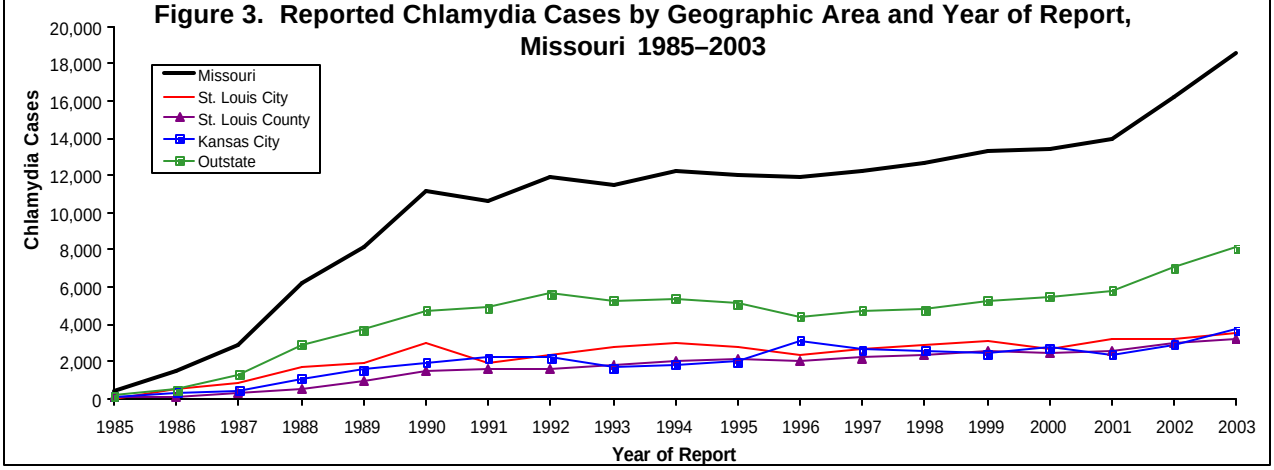
§All cases within the city limits of Kansas City are included in the totals for Kansas City. Cases indicated in Jackson, Clay and Platte counties are outside the city limits of Kansas City.

Figure 2. Reported Chlamydia Cases by Race, Gender, and Age Group, Missouri 2003



Other/Unknown includes race/ethnicity, gender, and/or age (n=4,491)

Figure 3. Reported Chlamydia Cases by Geographic Area and Year of Report, Missouri 1985–2003



Summary of Reported Gonorrhea Cases by County
Missouri, Five-Year Median (1999-2003), 2002, 2003

County	Five-Year Median	2002	2003	% Change 2002-2003	2003 Rate*
Adair	6	6	8	33.3%	32.0
Andrew	1	0	3	300.0%	18.2
Atchison	0	0	2	200.0%	31.1
Audrain	18	18	22	22.2%	85.1
Barry	2	1	6	500.0%	17.6
Barton	2	2	1	-50.0%	8.0
Bates	1	1	3	200.0%	18.0
Benton	1	1	4	300.0%	23.3
Bollinger	2	1	2	100.0%	16.6
Boone	232	191	264	38.2%	194.9
Buchanan	48	45	90	100.0%	104.7
Butler	27	55	60	9.1%	146.8
Caldwell	1	1	1	0.0%	11.1
Callaway	30	43	35	-18.6%	85.9
Camden	5	3	10	233.3%	27.0
Cape Girardeau	105	93	55	-40.9%	80.1
Carroll	1	1	1	0.0%	9.7
Carter	0	1	0	-100.0%	0.0
Cass	14	13	28	115.4%	34.1
Cedar	3	1	3	200.0%	21.8
Chariton	1	1	1	0.0%	11.9
Christian	11	15	15	0.0%	27.6
Clark	0	0	4	400.0%	53.9
Clay**	35	55	92	67.3%	92.0
Clinton	4	2	6	200.0%	31.6
Cole	68	72	68	-5.6%	95.2
Cooper	8	15	20	33.3%	120.0
Crawford	1	6	1	-83.3%	4.4
Dade	1	0	1	100.0%	12.6
Dallas	1	2	1	-50.0%	6.4
Daviess	1	0	3	300.0%	37.4
DeKalb	1	1	1	0.0%	8.6
Dent	1	3	0	-100.0%	0.0
Douglas	0	0	3	300.0%	22.9
Dunklin	29	10	26	160.0%	78.4
Franklin	22	27	22	-18.5%	23.5
Gasconade	1	3	2	-33.3%	13.0
Gentry	0	0	0	0.0%	0.0
Greene	188	260	325	25.0%	135.2
Grundy	1	1	1	0.0%	9.6
Harrison	2	0	2	200.0%	22.6
Henry	1	0	3	300.0%	13.6
Hickory	1	1	0	-100.0%	0.0
Holt	0	1	0	-100.0%	0.0
Howard	3	3	9	200.0%	88.1
Howell	2	4	14	250.0%	37.6
Iron	0	0	0	0.0%	0.0
Jackson**	182	184	182	-1.1%	54.8
Jasper	74	74	84	13.5%	80.2
Jefferson	39	51	39	-23.5%	19.7
Johnson	25	30	21	-30.0%	43.5
Kansas City	2,367	2,486	2367	-4.8%	536.2
Knox	1	0	0	0.0%	0.0
Laclede	5	7	6	-14.3%	18.5
Lafayette	9	10	9	-10.0%	27.3
Lawrence	5	5	6	20.0%	17.0
Lewis	1	0	1	100.0%	9.5
Lincoln	8	5	11	120.0%	28.2
Linn	2	6	3	-50.0%	21.8
Livingston	3	3	5	66.7%	34.3
Macon	9	6	16	166.7%	101.5
Madison	1	1	1	0.0%	8.5
Maries	0	0	2	200.0%	22.5
Marion	20	41	11	-73.2%	38.9
McDonald	3	1	10	900.0%	46.1
Mercer	0	0	1	100.0%	26.6
Miller	1	1	7	600.0%	29.7
Mississippi	45	45	45	0.0%	335.1
Moniteau	1	0	0	0.0%	0.0
Monroe	4	10	4	-60.0%	43.0
Montgomery	1	1	4	300.0%	33.0
Morgan	1	0	1	100.0%	5.2
New Madrid	45	45	38	-15.6%	192.3
Newton	10	18	7	-61.1%	13.3
Nodaway	3	2	5	150.0%	22.8
Oregon	1	1	0	-100.0%	0.0
Osage	1	2	0	-100.0%	0.0
Ozark	0	0	0	0.0%	0.0
Pemiscot	43	33	48	45.5%	239.4
Perry	2	2	8	300.0%	44.1
Pettis	18	16	18	12.5%	45.7
Phelps	10	6	13	116.7%	32.6
Pike	8	10	3	-70.0%	16.3
Platte**	14	8	33	312.5%	84.3
Polk	5	7	5	-28.6%	18.5
Pulaski	35	45	23	-48.9%	55.9
Putnam	0	1	0	-100.0%	0.0
Ralls	3	3	0	-100.0%	0.0
Randolph	17	24	17	-29.2%	68.9
Ray	3	4	3	-25.0%	12.8
Reynolds	0	0	0	0.0%	0.0
Ripley	0	0	0	0.0%	0.0
Saline	14	14	4	-71.4%	16.8
Schuyler	0	1	0	-100.0%	0.0
Scotland	0	0	2	200.0%	40.1
Scott	74	79	73	-7.6%	180.6
Shannon	0	0	0	0.0%	0.0
Shelby	1	1	1	0.0%	14.7
St. Charles	78	95	93	-2.1%	32.8
St. Clair	1	0	3	300.0%	31.1
St. Francois	17	29	17	-41.4%	30.6
St. Louis City	2,876	2,737	2,545	-7.0%	730.9
St. Louis	1,793	1,793	1,717	-4.2%	168.9
Ste. Genevieve	2	2	6	200.0%	33.6
Stoddard	7	7	5	-28.6%	16.8
Stone	1	1	6	500.0%	20.9
Sullivan	1	0	0	0.0%	0.0
Taney	11	11	22	100.0%	55.4
Texas	1	1	1	0.0%	4.3
Vernon	4	6	1	-83.3%	4.9
Warren	3	6	4	-33.3%	16.3
Washington	6	5	4	-20.0%	17.1
Wayne	1	4	4	0.0%	30.2
Webster	2	2	7	250.0%	22.5
Worth	0	0	0	0.0%	0.0
Wright	2	5	2	-60.0%	11.1
Missouri	**8,792**	8,952	8,792	**-1.8%**	157.1

*Cases per 100,000 population, based on 2000 U.S. Census Bureau data. Note that when the number of cases is less than 5, the rate is considered unstable and should be interpreted with caution.

**Outside the city limits of Kansas City.

Summary of Reported P&S Syphilis Cases by County
Missouri, Five-Year Median (1999-2003), 2002, 2003

County	Five-Year Median	2002	2003	% Change 2002-2003	2003 Rate*
Adair	0	0	0	0.0%	0.0
Andrew	0	0	0	0.0%	0.0
Atchison	0	0	0	0.0%	0.0
Audrain	0	0	1	100.0%	3.9
Barry	0	0	0	0.0%	0.0
Barton	0	0	0	0.0%	0.0
Bates	0	1	0	-100.0%	0.0
Benton	0	0	0	0.0%	0.0
Bollinger	0	0	0	0.0%	0.0
Boone	1	0	1	100.0%	0.7
Buchanan	0	0	0	0.0%	0.0
Butler	0	0	1	100.0%	2.4
Caldwell	0	0	0	0.0%	0.0
Callaway	1	1	0	-100.0%	0.0
Camden	0	0	0	0.0%	0.0
Cape Girardeau	0	1	0	-100.0%	0.0
Carroll	0	0	0	0.0%	0.0
Carter	0	0	0	0.0%	0.0
Cass	0	1	0	-100.0%	0.0
Cedar	0	0	0	0.0%	0.0
Chariton	0	0	0	0.0%	0.0
Christian	0	0	0	0.0%	0.0
Clark	0	0	0	0.0%	0.0
Clay**	0	0	1	100.0%	1.0
Clinton	0	0	0	0.0%	0.0
Cole	0	0	0	0.0%	0.0
Cooper	0	0	0	0.0%	0.0
Crawford	0	0	0	0.0%	0.0
Dade	0	0	0	0.0%	0.0
Dallas	0	0	0	0.0%	0.0
Daviess	0	0	0	0.0%	0.0
DeKalb	0	0	0	0.0%	0.0
Dent	0	0	0	0.0%	0.0
Douglas	0	0	0	0.0%	0.0
Dunklin	0	0	0	0.0%	0.0
Franklin	0	0	0	0.0%	0.0
Gasconade	0	0	0	0.0%	0.0
Gentry	0	0	0	0.0%	0.0
Greene	0	0	0	0.0%	0.0
Grundy	0	0	0	0.0%	0.0
Harrison	0	0	0	0.0%	0.0
Henry	0	0	0	0.0%	0.0
Hickory	0	0	0	0.0%	0.0
Holt	0	0	0	0.0%	0.0
Howard	0	0	0	0.0%	0.0
Howell	0	0	0	0.0%	0.0
Iron	0	0	0	0.0%	0.0
Jackson**	1	1	2	100.0%	0.6
Jasper	0	1	0	-100.0%	0.0
Jefferson	0	0	0	0.0%	0.0
Johnson	0	0	0	0.0%	0.0
Kansas City	7	7	17	142.9%	3.9
Knox	0	0	1	100.0%	22.9
Laclede	0	0	0	0.0%	0.0
Lafayette	0	0	0	0.0%	0.0
Lawrence	0	0	0	0.0%	0.0
Lewis	0	0	0	0.0%	0.0
Lincoln	0	0	0	0.0%	0.0
Linn	0	0	0	0.0%	0.0
Livingston	0	0	0	0.0%	0.0
Macon	0	0	0	0.0%	0.0
Madison	0	0	0	0.0%	0.0
Maries	0	0	0	0.0%	0.0
Marion	0	0	0	0.0%	0.0
McDonald	0	0	0	0.0%	0.0
Mercer	0	0	0	0.0%	0.0
Miller	0	0	0	0.0%	0.0
Mississippi	0	0	0	0.0%	0.0
Moniteau	0	0	0	0.0%	0.0
Monroe	0	0	0	0.0%	0.0
Montgomery	0	0	0	0.0%	0.0
Morgan	0	0	0	0.0%	0.0
New Madrid	0	0	0	0.0%	0.0
Newton	0	0	0	0.0%	0.0
Nodaway	0	0	0	0.0%	0.0
Oregon	0	0	0	0.0%	0.0
Osage	0	0	0	0.0%	0.0
Ozark	0	0	0	0.0%	0.0
Pemiscot	0	0	0	0.0%	0.0
Perry	0	0	0	0.0%	0.0
Pettis	0	0	0	0.0%	0.0
Phelps	0	0	0	0.0%	0.0
Pike	0	0	0	0.0%	0.0
Platte**	0	0	0	0.0%	0.0
Polk	0	0	0	0.0%	0.0
Pulaski	0	0	0	0.0%	0.0
Putnam	0	0	0	0.0%	0.0
Ralls	0	0	0	0.0%	0.0
Randolph	0	0	0	0.0%	0.0
Ray	0	0	0	0.0%	0.0
Reynolds	0	0	0	0.0%	0.0
Ripley	0	0	0	0.0%	0.0
Saline	0	0	0	0.0%	0.0
Schuyler	0	0	0	0.0%	0.0
Scotland	0	0	0	0.0%	0.0
Scott	0	0	0	0.0%	0.0
Shannon	0	0	0	0.0%	0.0
Shelby	0	0	0	0.0%	0.0
St. Charles	0	0	0	0.0%	0.0
St. Clair	0	0	0	0.0%	0.0
St. Francois	0	0	0	0.0%	0.0
St. Louis City	15	13	18	38.5%	5.2
St. Louis	12	7	18	157.1%	1.8
Ste. Genevieve	0	0	0	0.0%	0.0
Stoddard	0	1	0	-100.0%	0.0
Stone	0	0	0	0.0%	0.0
Sullivan	0	0	0	0.0%	0.0
Taney	0	0	0	0.0%	0.0
Texas	0	0	0	0.0%	0.0
Vernon	0	0	0	0.0%	0.0
Warren	0	0	0	0.0%	0.0
Washington	0	0	0	0.0%	0.0
Wayne	0	0	0	0.0%	0.0
Webster	0	0	0	0.0%	0.0
Worth	0	0	0	0.0%	0.0
Wright	0	0	0	0.0%	0.0
Missouri	34	34	60	76.5%	1.1

*Cases per 100,000 population, based on 2000 U.S. Census Bureau data. Note that when the number of cases is less than 5, the rate is considered unstable and should be interpreted with caution.

**Outside the city limits of Kansas City.

Summary of Reported Early Latent Syphilis Cases by County
Missouri, Five-Year Median (1999-2003), 2002, 2003

County	Five-Year Median	2002	2003	% Change 2002-2003	2003 Rate*
Adair	0	0	0	0.0%	0.0
Andrew	0	0	0	0.0%	0.0
Atchison	0	0	0	0.0%	0.0
Audrain	0	0	0	0.0%	0.0
Barry	0	1	0	-100.0%	0.0
Barton	0	0	0	0.0%	0.0
Bates	0	0	0	0.0%	0.0
Benton	0	0	0	0.0%	0.0
Bollinger	0	0	0	0.0%	0.0
Boone	0	3	0	-100.0%	0.0
Buchanan	0	1	0	-100.0%	0.0
Butler	1	1	3	200.0%	7.3
Caldwell	0	0	0	0.0%	0.0
Callaway	0	0	0	0.0%	0.0
Camden	0	0	0	0.0%	0.0
Cape Girardeau	0	0	0	0.0%	0.0
Carroll	0	0	0	0.0%	0.0
Carter	0	0	0	0.0%	0.0
Cass	0	1	1	0.0%	1.2
Cedar	0	0	0	0.0%	0.0
Chariton	0	0	0	0.0%	0.0
Christian	0	0	0	0.0%	0.0
Clark	0	0	0	0.0%	0.0
Clay**	0	0	0	0.0%	0.0
Clinton	0	0	0	0.0%	0.0
Cole	0	0	0	0.0%	0.0
Cooper	0	0	0	0.0%	0.0
Crawford	0	0	0	0.0%	0.0
Dade	0	0	0	0.0%	0.0
Dallas	0	0	0	0.0%	0.0
Daviess	0	0	0	0.0%	0.0
DeKalb	0	0	0	0.0%	0.0
Dent	0	0	0	0.0%	0.0
Douglas	0	0	0	0.0%	0.0
Dunklin	0	0	0	0.0%	0.0
Franklin	0	0	0	0.0%	0.0
Gasconade	0	0	0	0.0%	0.0
Gentry	0	0	0	0.0%	0.0
Greene	0	0	1	100.0%	0.4
Grundy	0	0	0	0.0%	0.0
Harrison	0	0	0	0.0%	0.0
Henry	0	0	0	0.0%	0.0
Hickory	0	0	0	0.0%	0.0
Holt	0	0	0	0.0%	0.0
Howard	0	0	0	0.0%	0.0
Howell	0	0	0	0.0%	0.0
Iron	0	0	0	0.0%	0.0
Jackson**	0	0	3	300.0%	0.9
Jasper	0	0	0	0.0%	0.0
Jefferson	0	0	0	0.0%	0.0
Johnson	0	0	0	0.0%	0.0
Kansas City	7	7	12	71.4%	2.7
Knox	0	0	0	0.0%	0.0
Laclede	0	0	0	0.0%	0.0
Lafayette	0	0	0	0.0%	0.0
Lawrence	0	0	0	0.0%	0.0
Lewis	0	0	0	0.0%	0.0
Lincoln	0	0	0	0.0%	0.0
Linn	0	0	0	0.0%	0.0
Livingston	0	0	0	0.0%	0.0
Macon	0	0	0	0.0%	0.0
Madison	0	0	0	0.0%	0.0
Maries	0	0	0	0.0%	0.0
Marion	0	0	0	0.0%	0.0
McDonald	0	0	0	0.0%	0.0
Mercer	0	0	0	0.0%	0.0
Miller	0	0	1	100.0%	4.2
Mississippi	0	0	0	0.0%	0.0
Moniteau	0	0	0	0.0%	0.0
Monroe	0	0	0	0.0%	0.0
Montgomery	0	0	0	0.0%	0.0
Morgan	0	0	0	0.0%	0.0
New Madrid	0	0	0	0.0%	0.0
Newton	0	0	0	0.0%	0.0
Nodaway	0	0	0	0.0%	0.0
Oregon	0	0	0	0.0%	0.0
Osage	0	0	0	0.0%	0.0
Ozark	0	0	0	0.0%	0.0
Pemiscot	0	0	0	0.0%	0.0
Perry	0	0	0	0.0%	0.0
Pettis	0	0	1	100.0%	2.5
Phelps	0	0	0	0.0%	0.0
Pike	0	0	0	0.0%	0.0
Platte**	0	0	0	0.0%	0.0
Polk	0	0	0	0.0%	0.0
Pulaski	0	0	0	0.0%	0.0
Putnam	0	0	0	0.0%	0.0
Ralls	0	0	0	0.0%	0.0
Randolph	0	0	0	0.0%	0.0
Ray	0	0	0	0.0%	0.0
Reynolds	0	0	0	0.0%	0.0
Ripley	0	0	0	0.0%	0.0
Saline	0	0	0	0.0%	0.0
Schuyler	0	0	0	0.0%	0.0
Scotland	0	0	0	0.0%	0.0
Scott	3	1	3	200.0%	7.4
Shannon	0	0	0	0.0%	0.0
Shelby	0	0	0	0.0%	0.0
St. Charles	0	0	0	0.0%	0.0
St. Clair	0	0	0	0.0%	0.0
St. Francois	0	0	1	100.0%	1.8
St. Louis City	21	23	12	-47.8%	3.4
St. Louis	13	13	7	-46.2%	0.7
Ste. Genevieve	0	0	0	0.0%	0.0
Stoddard	0	0	0	0.0%	0.0
Stone	0	0	0	0.0%	0.0
Sullivan	0	0	0	0.0%	0.0
Taney	0	0	0	0.0%	0.0
Texas	0	0	1	100.0%	4.3
Vernon	0	0	0	0.0%	0.0
Warren	0	0	0	0.0%	0.0
Washington	0	0	0	0.0%	0.0
Wayne	0	0	0	0.0%	0.0
Webster	0	0	0	0.0%	0.0
Worth	0	0	0	0.0%	0.0
Wright	0	0	0	0.0%	0.0
Missouri	51	33	46	-9.8%	0.8

*Cases per 100,000 Population, based on 2000 U.S. Census Bureau data. Note that when the number of cases is less than 5, the rate is considered unstable and should be interpreted with caution.

**Outside the city limits of Kansas City.

Summary of Reported Chlamydia Cases by County
Missouri, Five-Year Median (1999-2003), 2002, 2003

County	Five-Year Median	2002	2003	% Change 2002-2003	2003 Rate*
Adair	31	27	40	48.1%	160.1
Andrew	10	10	16	60.0%	97.0
Atchison	1	1	8	700.0%	124.4
Audrain	52	62	88	41.9%	340.4
Barry	47	51	54	5.9%	158.8
Barton	10	4	10	150.0%	79.7
Bates	15	15	18	20.0%	108.1
Benton	12	21	12	-42.9%	69.8
Bollinger	6	6	7	16.7%	58.2
Boone	444	454	679	49.6%	501.3
Buchanan	273	297	364	22.6%	423.3
Butler	100	125	127	1.6%	310.8
Caldwell	6	11	6	-45.5%	66.9
Callaway	85	100	122	22.0%	299.3
Camden	39	40	58	45.0%	156.5
Cape Girardeau	170	164	170	3.7%	247.5
Carroll	10	10	21	110.0%	204.2
Carter	2	2	4	100.0%	67.3
Cass	71	94	108	14.9%	131.6
Cedar	15	16	15	-6.3%	109.2
Chariton	6	4	7	75.0%	83.0
Christian	73	95	103	8.4%	189.7
Clark	5	2	5	150.0%	67.4
Clav**	188	188	392	108.5%	392.0
Clinton	18	20	44	120.0%	231.8
Cole	175	235	250	6.4%	350.2
Cooper	29	29	51	75.9%	305.9
Crawford	31	34	31	-8.8%	135.9
Dade	6	3	8	166.7%	101.0
Dallas	10	11	22	100.0%	140.5
Daviess	8	8	8	0.0%	99.8
DeKalb	6	6	12	100.0%	103.5
Dent	13	13	11	-15.4%	73.7
Douglas	9	9	10	11.1%	76.4
Dunklin	76	55	77	40.0%	232.2
Franklin	80	80	128	60.0%	136.5
Gasconade	5	5	11	120.0%	71.7
Gentry	6	4	6	50.0%	87.5
Greene	593	672	662	-1.5%	275.4
Grundy	21	21	29	38.1%	278.0
Harrison	9	13	8	-38.5%	90.4
Henry	18	23	23	0.0%	104.6
Hickory	3	9	0	-100.0%	0.0
Holt	4	6	3	-50.0%	56.1
Howard	17	19	27	42.1%	264.4
Howell	50	59	88	49.2%	236.3
Iron	5	8	12	50.0%	112.2
Jackson**	508	572	631	10.3%	190.0
Jasper	264	308	302	-1.9%	288.5
Jefferson	140	236	221	-6.4%	111.6
Johnson	140	188	155	-17.6%	321.2
Kansas City	2,747	2,942	3,720	26.4%	842.7
Knox	1	0	1	100.0%	22.9
Laclede	61	61	61	0.0%	187.6
Lafayette	51	53	69	30.2%	209.3
Lawrence	47	59	47	-20.3%	133.5
Lewis	9	4	9	125.0%	85.8
Lincoln	27	45	55	22.2%	141.2
Linn	15	21	19	-9.5%	138.1
Livingston	19	28	34	21.4%	233.5
Macon	23	23	40	73.9%	253.8
Madison	7	2	10	400.0%	84.7
Maries	3	3	5	66.7%	56.2
Marion	56	99	141	42.4%	498.4
McDonald	29	36	35	-2.8%	161.4
Mercer	2	2	4	100.0%	106.5
Miller	26	50	54	8.0%	229.2
Mississippi	54	58	73	25.9%	543.7
Moniteau	8	14	26	85.7%	175.4
Monroe	11	21	20	-4.8%	214.8
Montgomery	9	6	9	50.0%	74.2
Morgan	15	15	23	53.3%	119.1
New Madrid	61	72	80	11.1%	404.9
Newton	54	58	66	13.8%	125.4
Nodaway	34	42	44	4.8%	200.8
Oregon	5	7	5	-28.6%	48.3
Osage	9	10	9	-10.0%	68.9
Ozark	6	5	8	60.0%	83.8
Pemiscot	116	157	95	-39.5%	473.9
Perry	13	23	17	-26.1%	93.8
Pettis	83	98	118	20.4%	299.5
Phelps	64	64	79	23.4%	198.4
Pike	35	38	52	36.8%	283.4
Platte**	51	49	130	165.3%	332.0
Polk	33	41	51	24.4%	188.9
Pulaski	162	193	195	1.0%	473.7
Putnam	4	4	3	-25.0%	57.4
Ralls	8	18	16	-11.1%	166.2
Randolph	50	50	62	24.0%	251.4
Ray	23	39	30	-23.1%	128.5
Reynolds	2	1	0	-100.0%	0.0
Ripley	3	0	4	400.0%	29.6
Saline	37	35	41	17.1%	172.6
Schuyler	3	4	4	0.0%	95.9
Scotland	3	3	2	-33.3%	40.1
Scott	129	129	133	3.1%	329.0
Shannon	2	4	2	-50.0%	24.0
Shelby	4	2	3	50.0%	44.1
St. Charles	296	415	390	-6.0%	137.4
St. Clair	7	4	12	200.0%	124.3
St. Francois	83	101	96	-5.0%	172.5
St. Louis City	3,195	3,202	3,502	9.4%	1,005.8
St. Louis	2,581	3,000	3,235	7.8%	318.3
Ste. Genevieve	7	10	7	-30.0%	39.2
Stoddard	38	38	44	15.8%	148.1
Stone	19	22	19	-13.6%	66.3
Sullivan	10	9	4	-55.6%	55.4
Taney	53	74	74	0.0%	186.4
Texas	14	12	19	58.3%	82.6
Vernon	40	43	52	20.9%	254.2
Warren	19	20	31	55.0%	126.4
Washington	27	40	33	-17.5%	141.4
Wayne	5	5	11	120.0%	83.0
Webster	35	35	44	25.7%	141.7
Worth	1	2	1	-50.0%	42.0
Wright	24	16	28	75.0%	155.9
Missouri	**13,949**	**16,181**	**18,570**	**16.0%**	**331.9**

*Cases per 100,000 Population, based on 2000 U.S. Census Bureau data. Note that when the number of cases is less than 5, the rate is considered unstable and should be interpreted with caution

**Outside the city limits of Kansas City.

Behavioral Studies

Missouri Behavioral Risk Factor Surveillance System (MOBRFSS): Results from HIV/AIDS Related Questions—2002[1]

[1] Centers for Disease Control and Prevention (CDC). *Behavioral Risk Factor Surveillance System Survey Data*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2002. Data analysis provided by CDC. Source: http://apps.nccd.cdc.gov/brfss/page.asp?cat=HV&yr=2002&state=MO#HV. Accessed May 2004.

General Description

The Missouri Behavioral Risk Factor Surveillance System (BRFSS) is an annual population-based, random-digit–dialed telephone survey of the state's civilian, non-institutionalized adult population 18 years of age and older. Interviewers ask questions related to health behaviors, health screening, quality of life, mental health, impairment, and access to health care and insurance. The results are weighted by demographic characteristics and by selection probability, and are used in planning, implementing, and evaluating health promotion and disease prevention programs.

For participants 18-64 years of age, the interview includes questions regarding HIV/AIDS-related knowledge and attitudes and HIV-related behaviors. The BRFSS does not always contain the same questions from one year to the next, and this is the case for HIV/AIDS questions. The results of the 2002 BRFSS HIV/AIDS-related questions are summarized on the following pages.

The results are not in the order in which they appeared in the questionnaire, but are arranged according to programming priorities. Answers to each question are stratified by sex, race/ethnicity, age, education and income, depending on the nature and response structure of any particular question.

HIV/AIDS Related Questions

Question 1. I'm going to read you a list . When I'm done, please tell me if any of the situations apply to you. (The interviewer then read the statements below. The respondent answered "Yes" or "No" to each situation and a "Yes" answer to any of the situations results in a "Yes" answer for the whole question.)
Have you used intravenous drugs in the past year?
Have you been treated for a sexually transmitted disease or venereal disease in the past year?
Have you given or received money or drugs in exchange for sex in the past year?
Have you had anal sex without a condom in the past year?

This question is designed to reflect HIV/AIDS risk behaviors in the adult population of Missouri. In the adult population of Missouri, 3.6% of respondents stated they had engaged in HIV-related behaviors in the past year (Figure 1.1). A little over four percent of male respondents (4.3%) and 2.9% of female respondents in the general population reported engaging in any of the HIV risk-related behaviors (Figure 1.2). Hispanics had the highest percentage of the racial/ethnic groups engaging in HIV-related risk behaviors at 7.5%, with Blacks being the second highest group at 6.3% (Figure 1.3). Both of these groups are approximately twice as high as Whites (3.2%). Over nine percent (9.1%) of individuals ages 18 to 24 are engaging in these high-risk behaviors which is almost as much as all the other age groups combined (10.2%) (Figure 1.4). Thirteen percent of individuals with less than a high-school education are engaging in these high-risk behaviors, which is almost four times the number in the next highest education category (3.5% in High School or GED) (Figure 1.5). Over eight percent (8.1%) of individuals earning less than $15,000 engage in high-risk behaviors with individuals making $25-35,000 the next highest at 5.8% (Figure 1.6*).

* Note: DK/NS represent "Don't Know/Not Sure" from answers in questionnaire.

Source: http://apps.nccd.cdc.gov/brfss/page.asp?cat=HV&yr=2002&state=MO#HV. Accessed May 2004.

Figure 1.1. Percentage of Respondents That Engaged in HIV-Related Behaviors in the Past Year, Missouri 2002

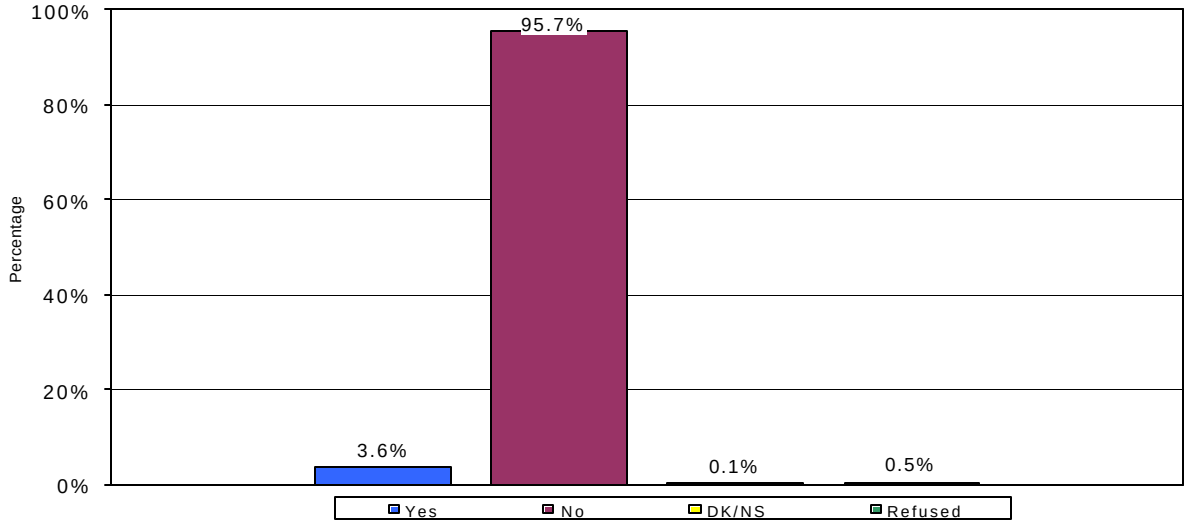


Figure 1.2. Percentage of Respondents That Engaged in HIV-Related Behaviors in the Past Year, by Sex, Missouri 2002

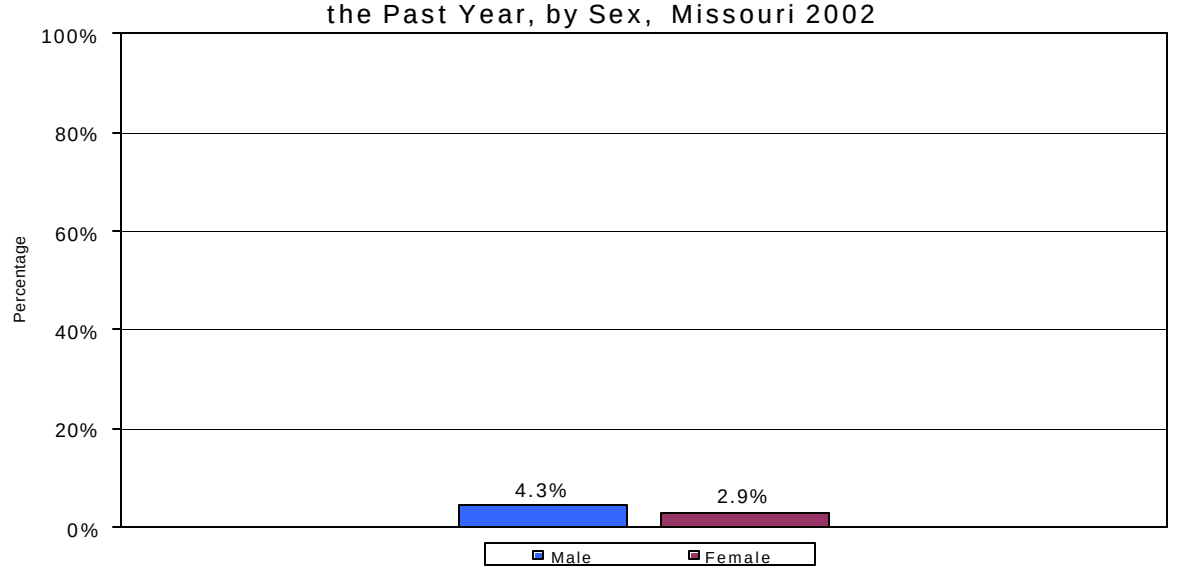
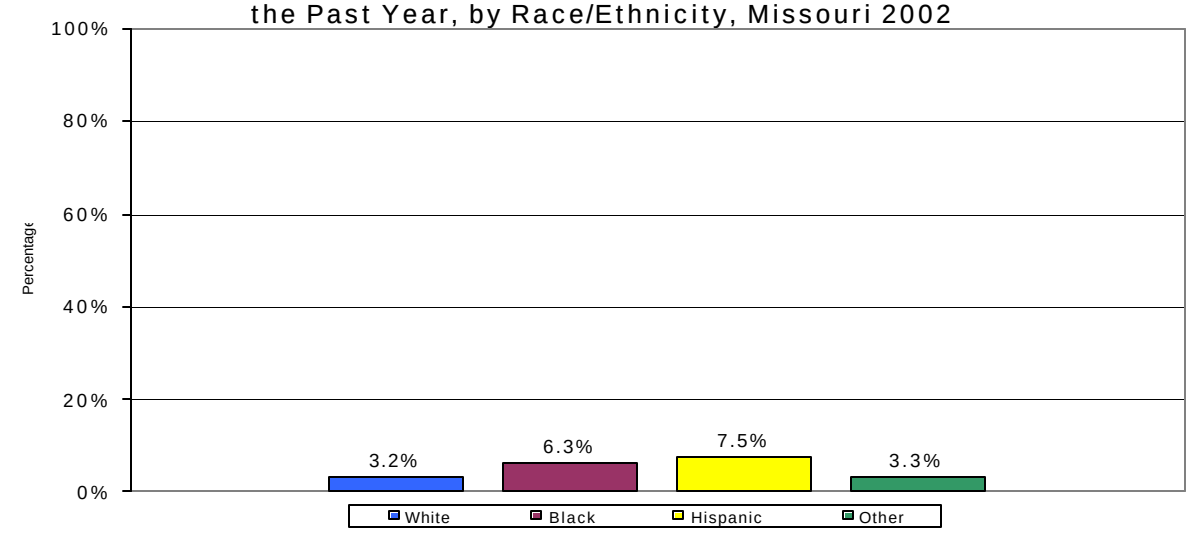


Figure 1.3. Percentage of Respondents That Engaged in HIV-Related Behaviors in the Past Year, by Race/Ethnicity, Missouri 2002



Source: http://apps.nccd.cdc.gov/brfss/page.asp?cat=HV&yr=2002&state=MO#HV. Accessed May 2004.

Figure 1.4. Percentage of Respondents That Engaged in HIV-Related Behaviors in the Past Year, by Age Group, Missouri 2002

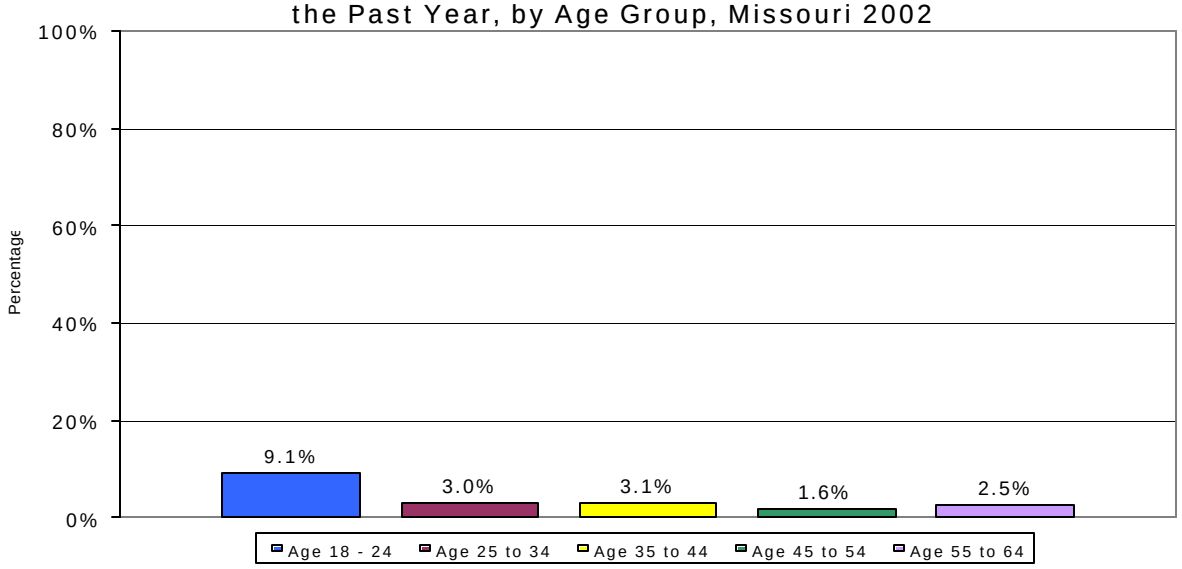


Figure 1.5. Percentage of Respondents That Engaged in HIV-Related Behaviors in the Past Year, by Education Level, Missouri 2002

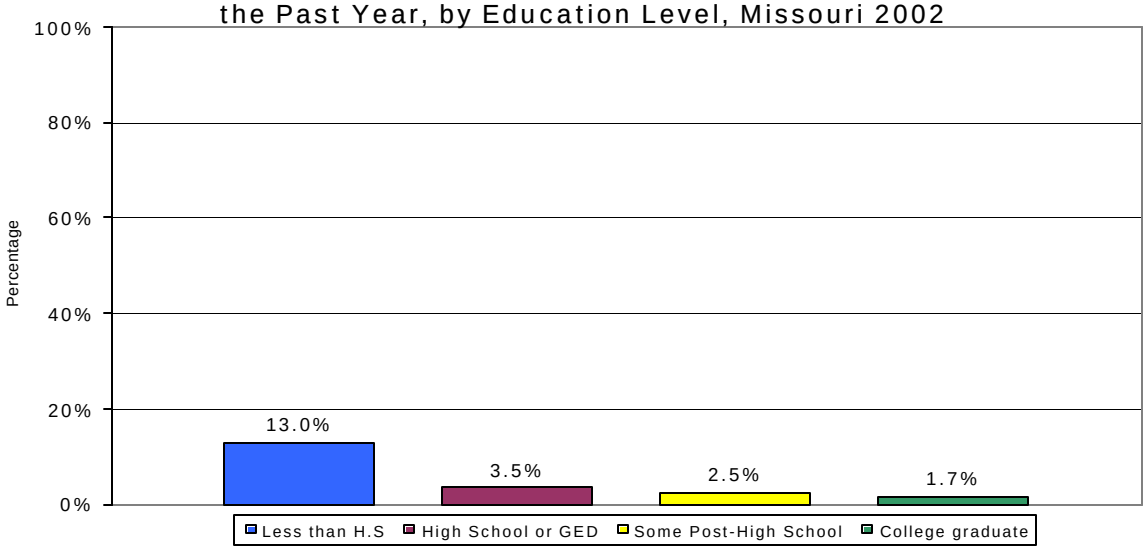
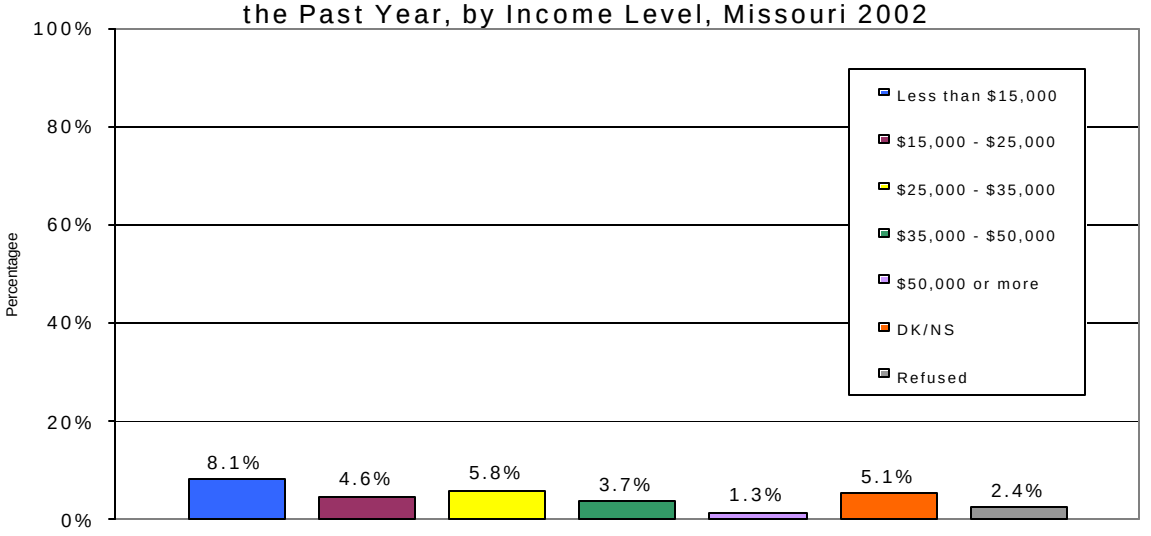


Figure 1.6. Percentage of Respondents That Engaged in HIV-Related Behaviors in the Past Year, by Income Level, Missouri 2002



Source: http://apps.nccd.cdc.gov/brfss/page.asp?cat=HV&yr=2002&state=MO#HV. Accessed May 2004.

Question 2. Have you ever been tested for HIV? Do not count tests you may have had as part of a blood donation.

A little over 40.0% of the general population between 18 and 65 has been tested for HIV at some time in their life (Figure 2.1*). Among the males in the population, 41.7% have been tested and 39.8% of the females in the population have been tested (Figure 2.2). A larger number of Blacks (63.5%) have been tested than Hispanics (52.6%) and those individuals classified in other populations (46.4%), and Whites (37.7%) (Figure 2.3). Individuals ages 25 to 34 are being tested at a rate of 60.5% (Figure 2.4), followed by individuals 35 to 44 years old (48.1%). The next highest rate for testing is among individuals 18 to 24 years old at 38.6%. Neither education nor income level appears to have any influence on testing behavior (Figures 2.5 & 2.6).

* Note: DK/NS represent "Don't Know/Not Sure" from answers in questionnaire.

Figure 2.1. Percentage of Respondents Who Have Been Tested for HIV Some Time in Their Life, Missouri 2002

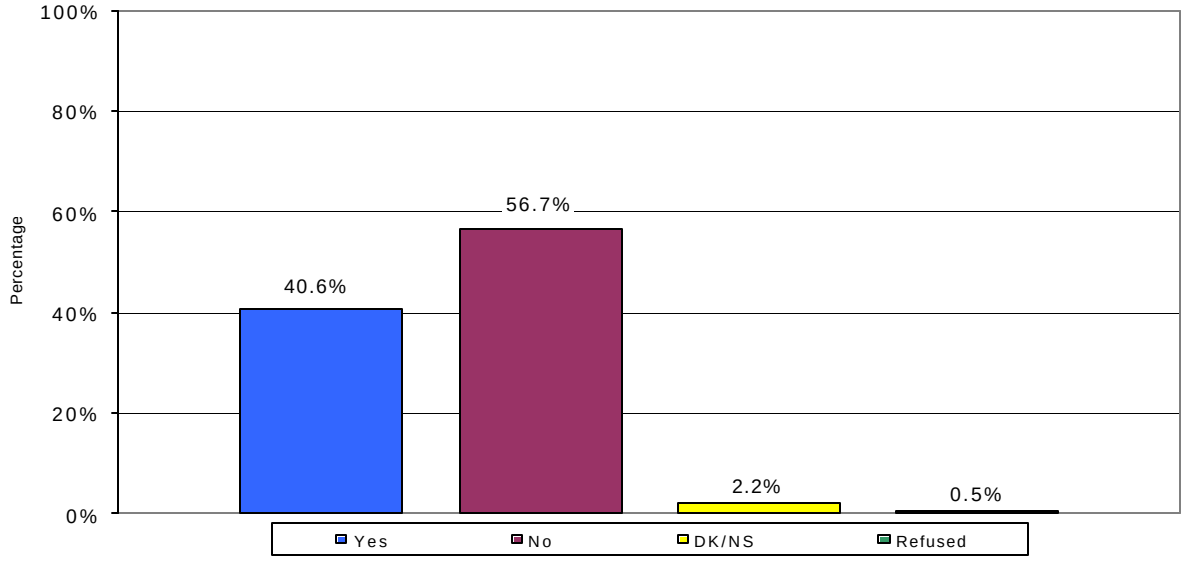
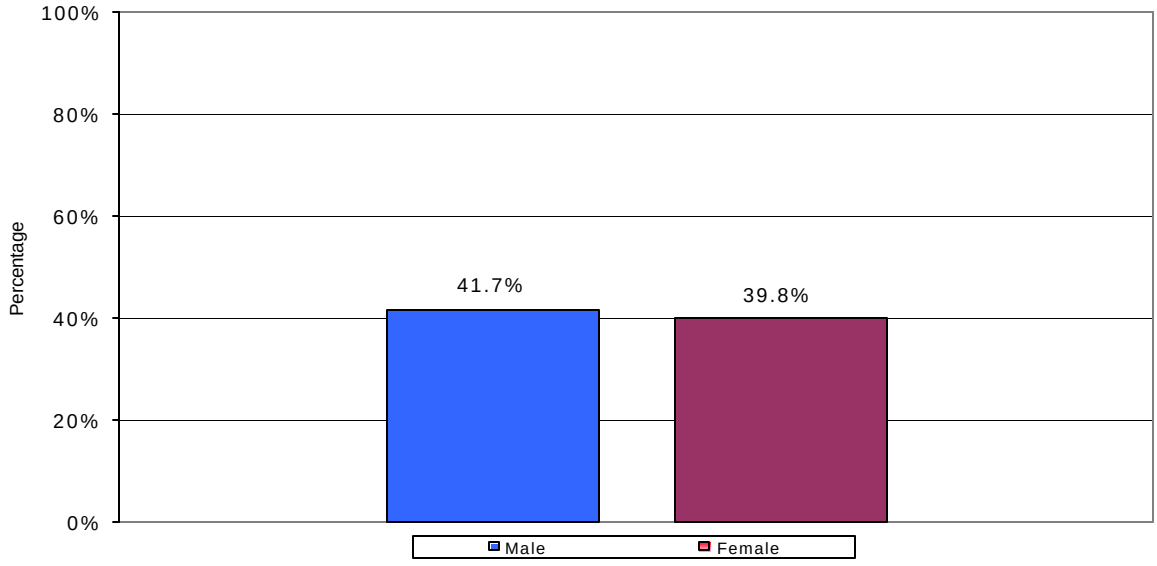


Figure 2.2. Percentage of Respondents Who Have Been Tested for HIV Some Time in Their Life, by Gender, Missouri 2002



Source: http://apps.nccd.cdc.gov/brfss/page.asp?cat=HV&yr=2002&state=MO#HV. Accessed May 2004.

Figure 2.3. Percentage of Respondents Who Have Been Tested for HIV Some Time in Their Life, by Race, Missouri 2002

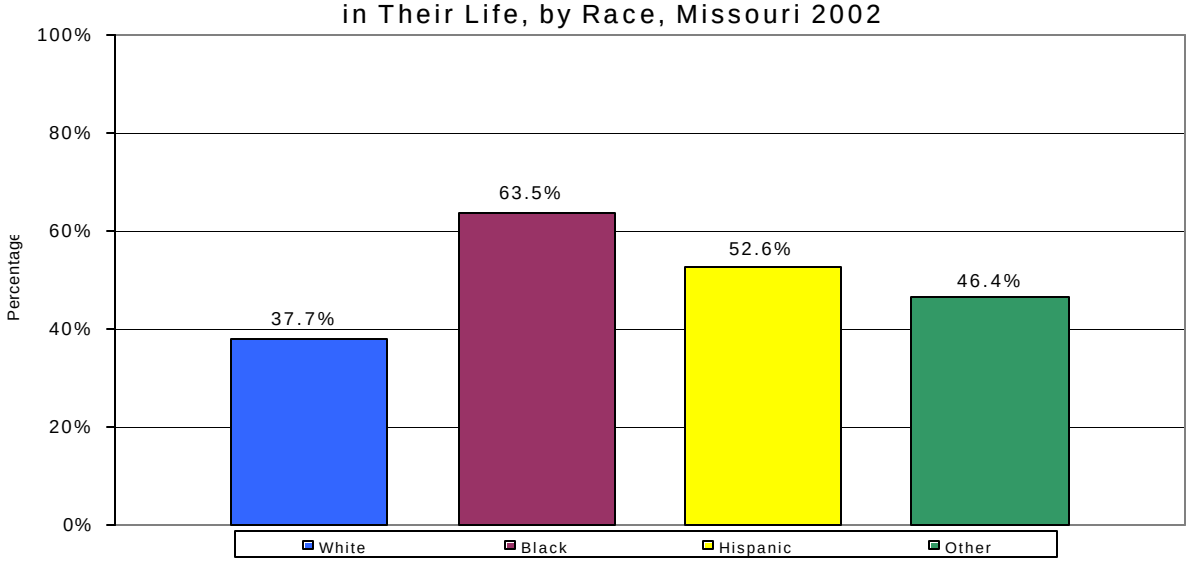


Figure 2.4. Percentage of Respondents Who Have Been Tested for HIV Some Time in Their Life, by Age, Missouri 2002

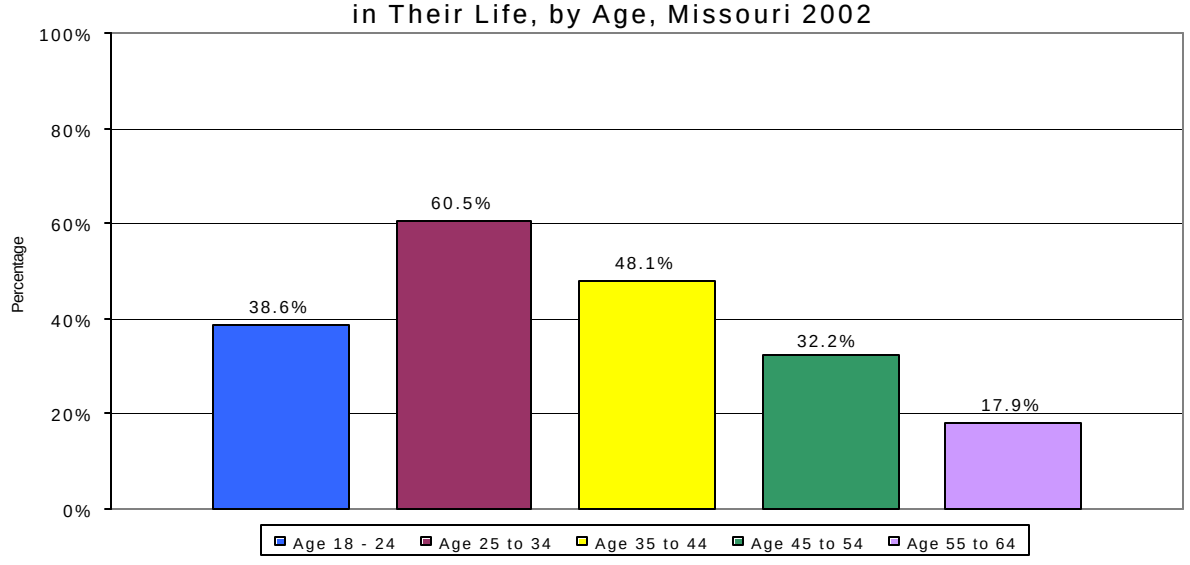
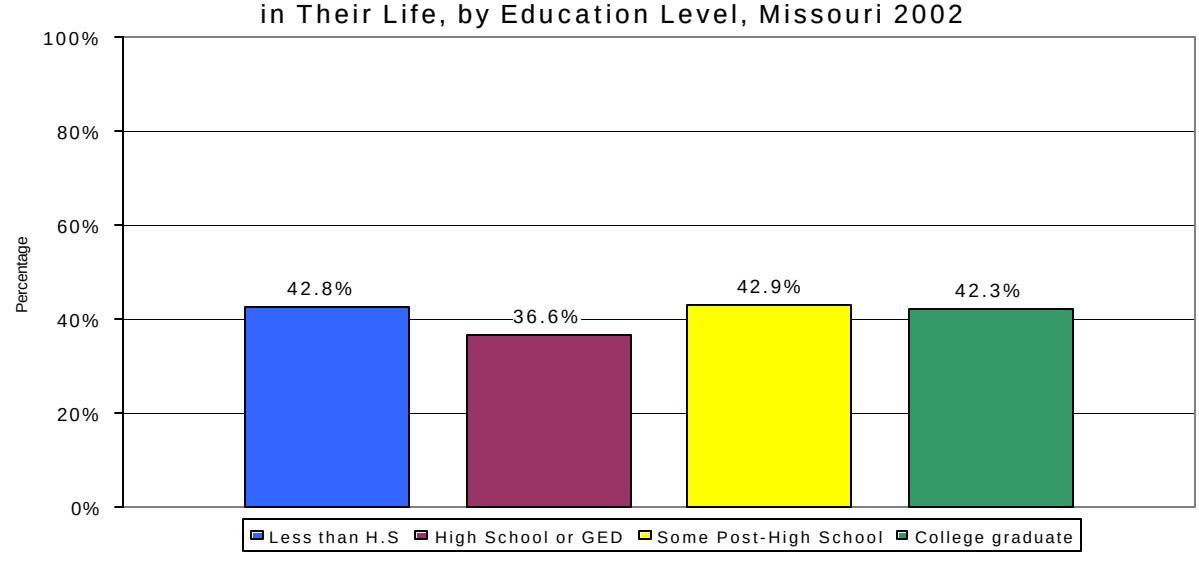
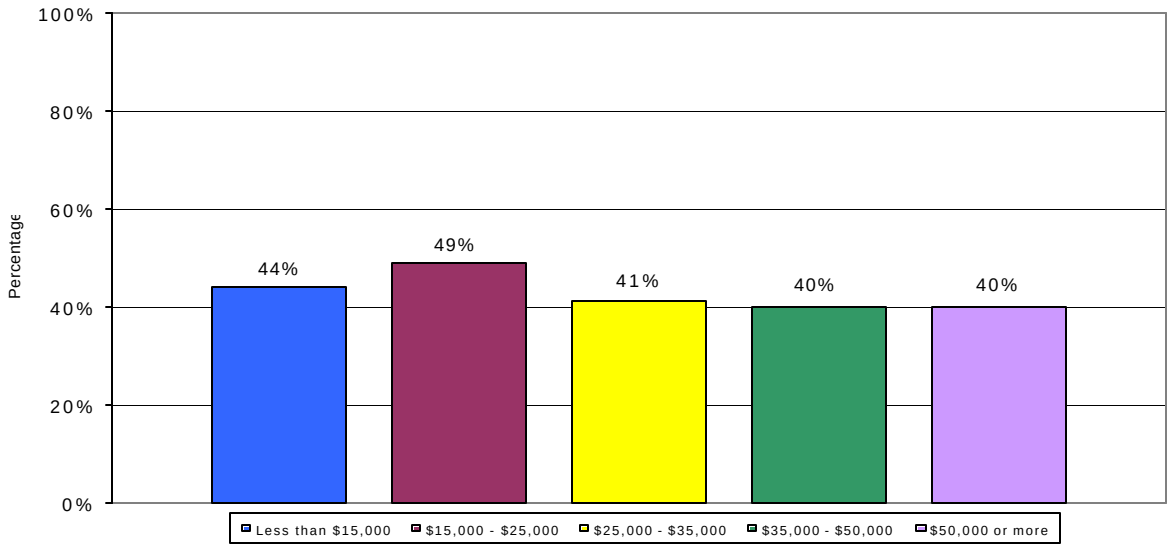


Figure 2.5. Percentage of Respondents Who Have Been Tested for HIV Some Time in Their Life, by Education Level, Missouri 2002



Source: http://apps.nccd.cdc.gov/brfss/page.asp?cat=HV&yr=2002&state=MO#HV. Accessed May 2004.

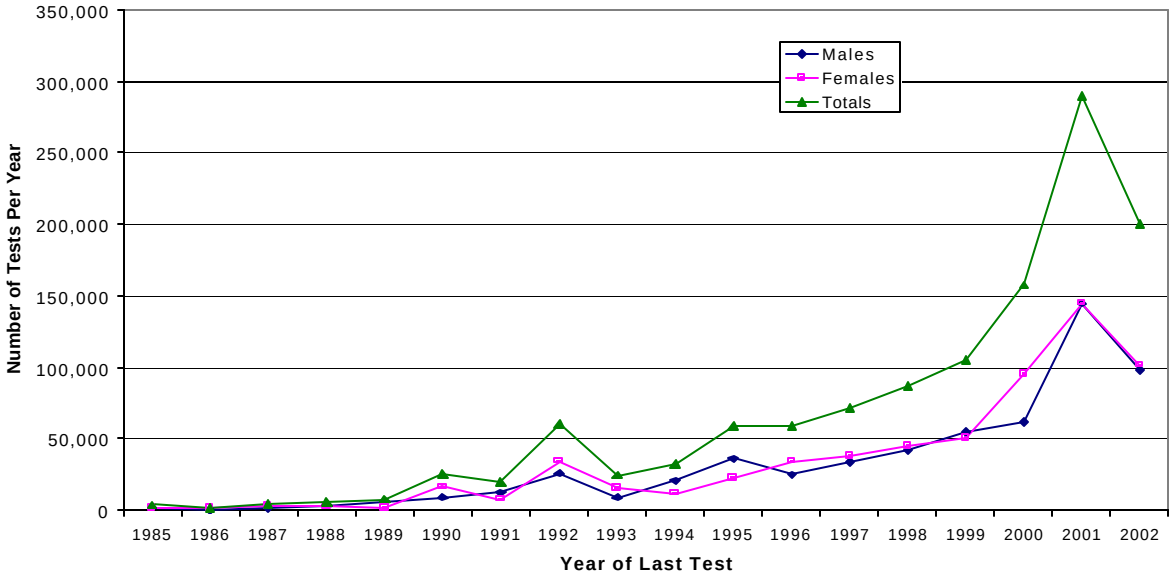
Figure 2.6. Percentage of Respondents Who Have Been Tested for HIV Some Time in Their Life, by Income Level, Missouri 2002



Question 3. Not including blood donations, in what month and year was your last HIV test? (Responses before January 1985 were coded "don't know").

Figure 3 presents the answers to this question for the year of last test. Overall, the data indicate a steady increase in testing since 1989, with a sharp increase from 1999 through 2001, and then a decrease in 2002. Males and females generally were about even each year except for 2000, when more females than males stated they were tested. Because this question relies on the respondent's ability to remember the date of their last test, the data are subject to memory error.

Figure 3. Year of Last HIV Test, Missouri 2002

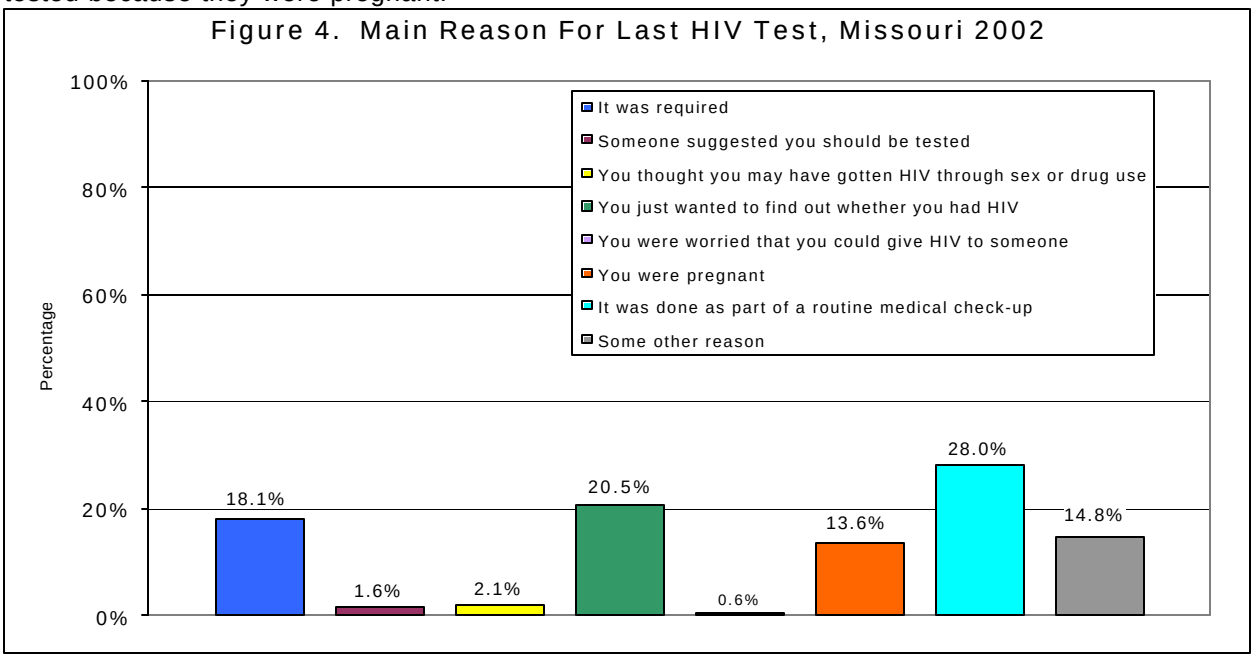


Source: http://apps.nccd.cdc.gov/brfss/page.asp?cat=HV&yr=2002&state=MO#HV. Accessed May 2004.

Question 4. I am going to read you a list of reasons why some people have been tested for HIV. Not including blood donations, which of these would you say was the MAIN reason for your last HIV test?

Most of the respondents (28.0%) who reported ever having an HIV test did so as part of a routine medical checkup, followed by respondents who were curious about their status (20.5%) (Figure 4). A little over 18.0% said it was required and 14.8% said some other reason, followed by 13.6% who were tested because they were pregnant.

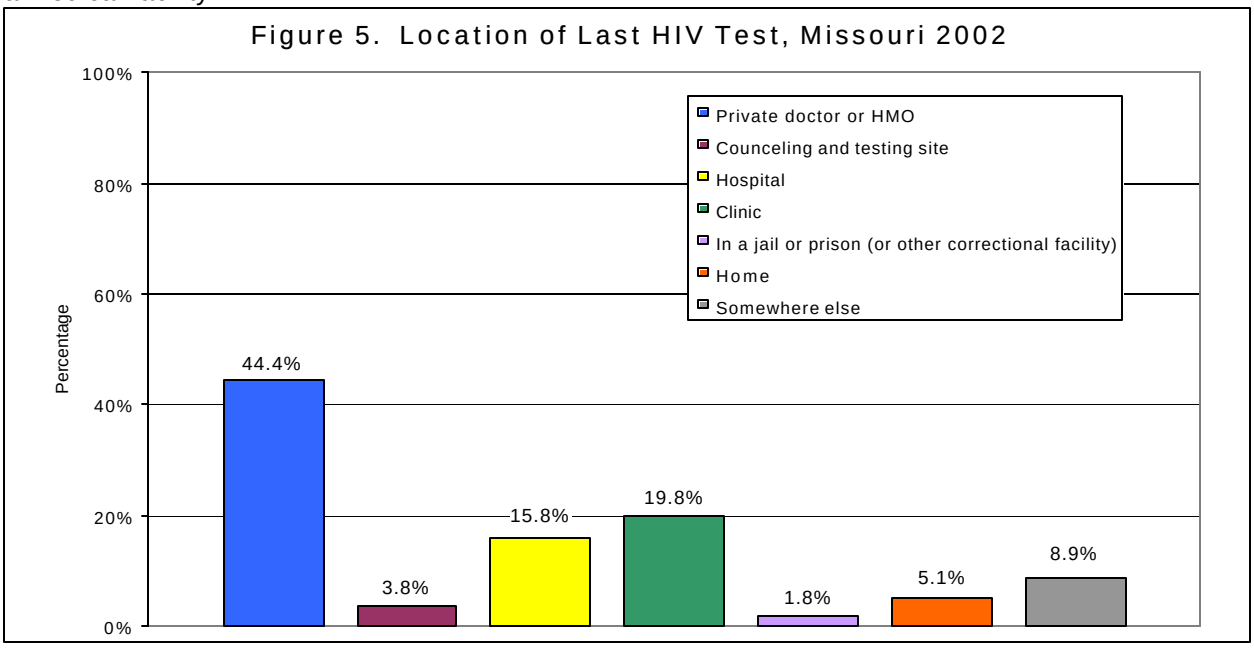
Figure 4. Main Reason For Last HIV Test, Missouri 2002



Question 5. Where did you have your last HIV test, at a private doctor or HMO office, at a counseling and testing site, at a hospital, at a clinic, in a jail or prison, at home, or somewhere else?

The largest proportion of respondents (44.4%) who have ever had an HIV test did so at a private doctor's office or HMO (Figure 5). The next largest group was tested at a clinic (19.8%) followed by being tested at a hospital (15.8%). Overall, 80.0% of respondents who have had an HIV test did so at a medical facility.

Figure 5. Location of Last HIV Test, Missouri 2002



Source: http://apps.nccd.cdc.gov/brfss/page.asp?cat=HV&yr=2002&state=MO#HV. Accessed May 2004.

Question 6. How important do you think it is for people to know their HIV status by getting tested?

This question is designed to reflect the attitude in the general population about this issue. Over 90.0% of the respondents stated that it is very important for people to find out their HIV status by being tested (Figure 6.1*). This belief is held just about evenly across males (88.2%) and females (92.9%) (Figure 6.2), racial/ethnic groups (Figure 6.3), levels of education (Figure 6.5) and levels of income (Figure 6.6). Only the age groups appear to have differing opinions in that the older the person the less likely it is that they believe it is very important for people to find out their HIV status by being tested (Figure 6.4).

* Note: DK/NS represent "Don't Know/Not Sure" from answers in questionnaire.

Figure 6.1. The Degree to Which Respondents Believe it is Important for People to Know Their HIV Status by being Tested, Missouri 2002

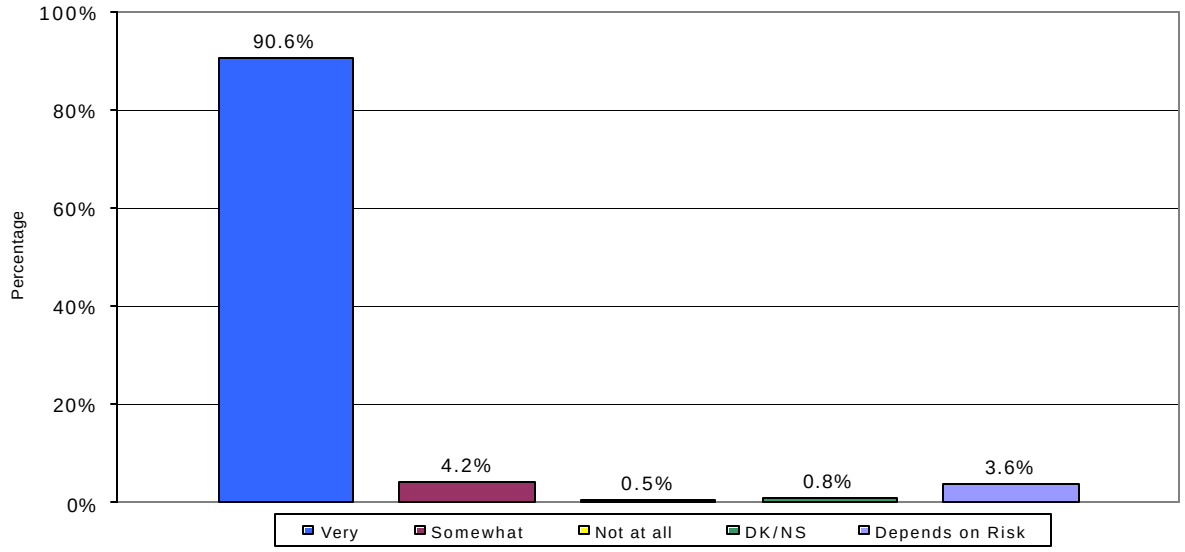
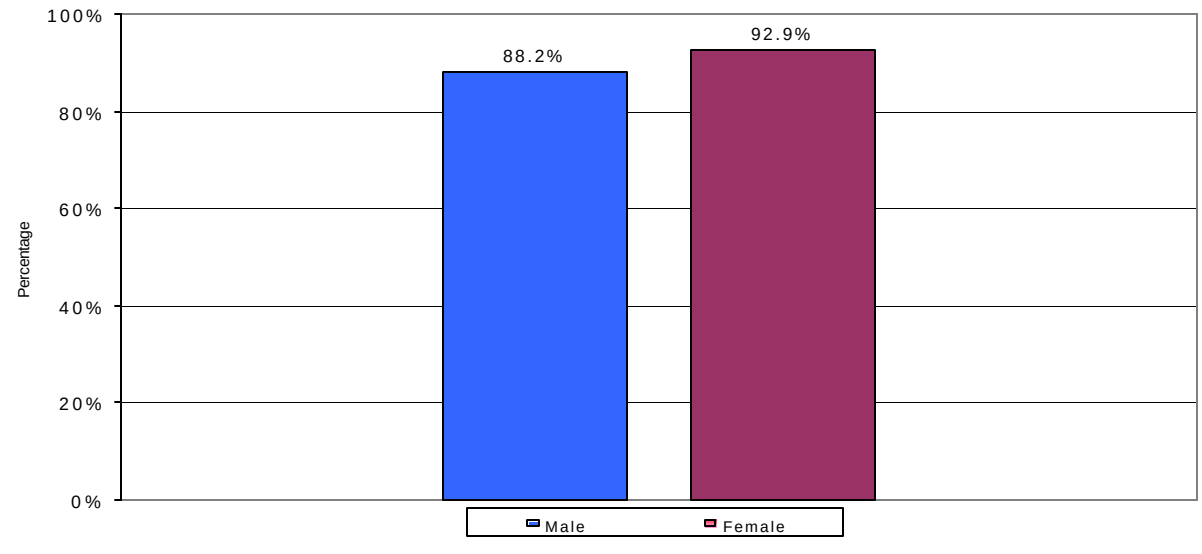


Figure 6.2. Percentage of Respondents Who Said That Finding Out One's HIV Status by Testing is "Very Important," by Sex, Missouri 2002



Source: http://apps.nccd.cdc.gov/brfss/page.asp?cat=HV&yr=2002&state=MO#HV. Accessed May 2004.

Figure 6.3. Percentage of Respondents Who Said That Finding Out One's HIV Status by Testing is "Very Important," by Race/Ethnicity, Missouri 2002

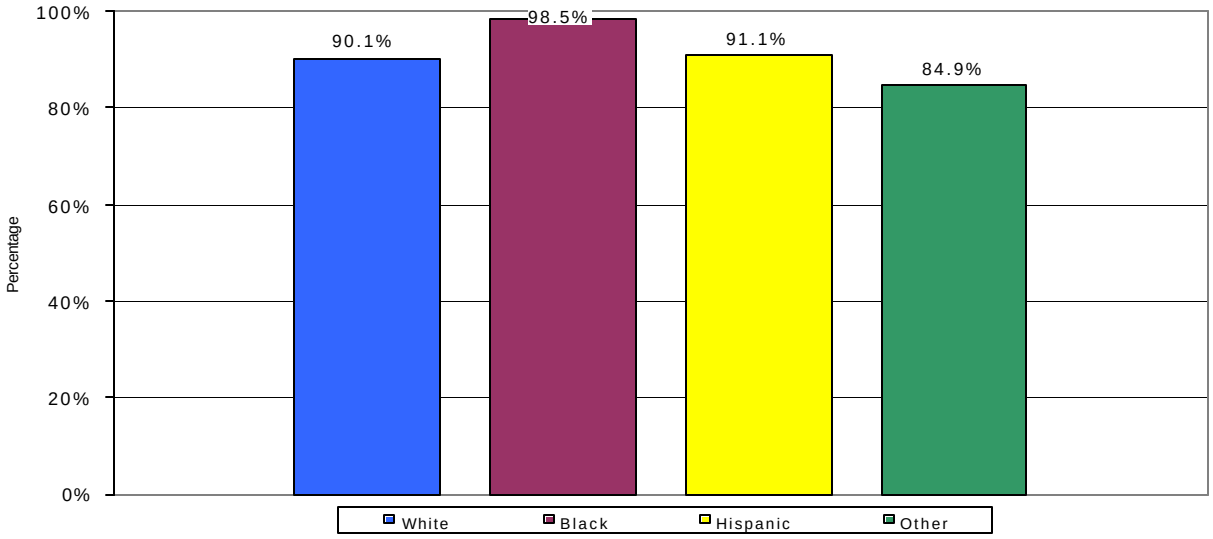


Figure 6.4. Percentage of Respondents Who Said That Finding Out One's HIV Status by Testing is "Very Important," by Age, Missouri 2002

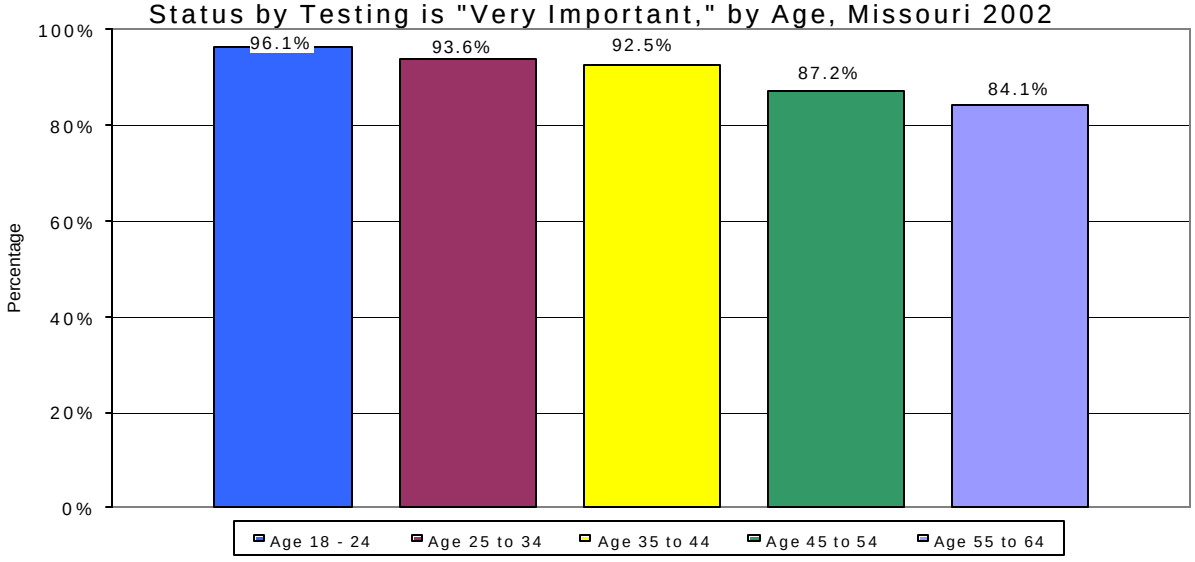
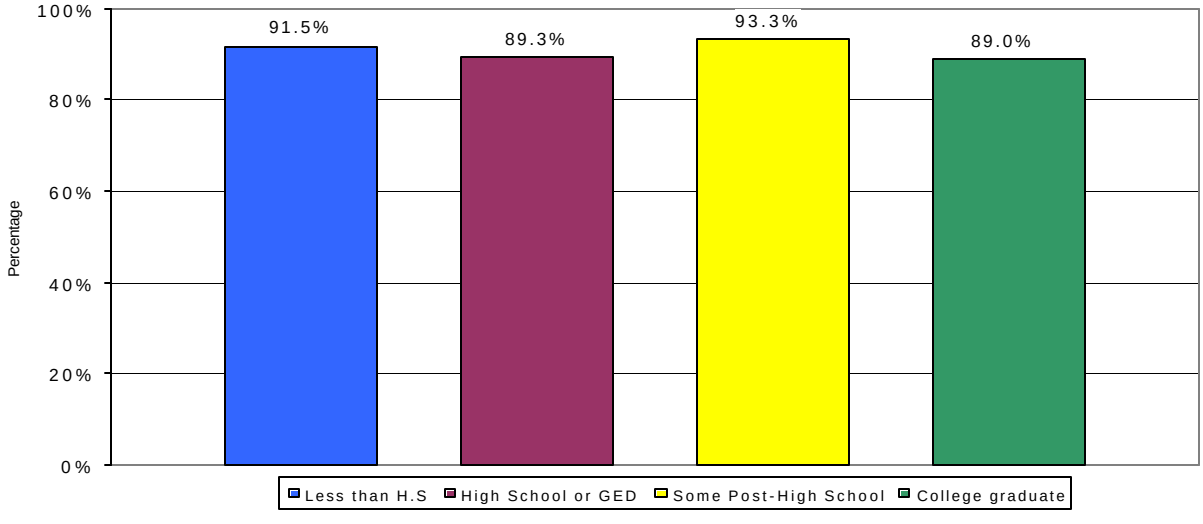
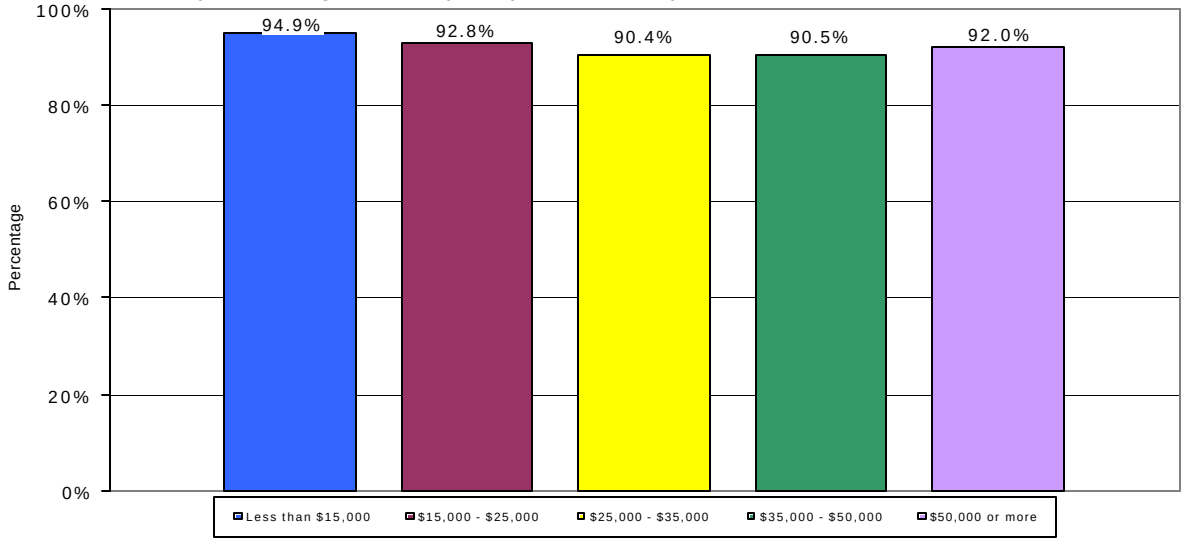


Figure 6.5. Percentage of Respondents Who Said That Finding Out One's HIV Status by Testing is "Very Important," by Education Level, Missouri 2002



Source: http://apps.nccd.cdc.gov/brfss/page.asp?cat=HV&yr=2002&state=MO#HV. Accessed May 2004.

Figure 6.6. Percentage of Respondents Who Said That Finding Out One's HIV Status by Testing is "Very Important," by Income Level, Missouri 2002

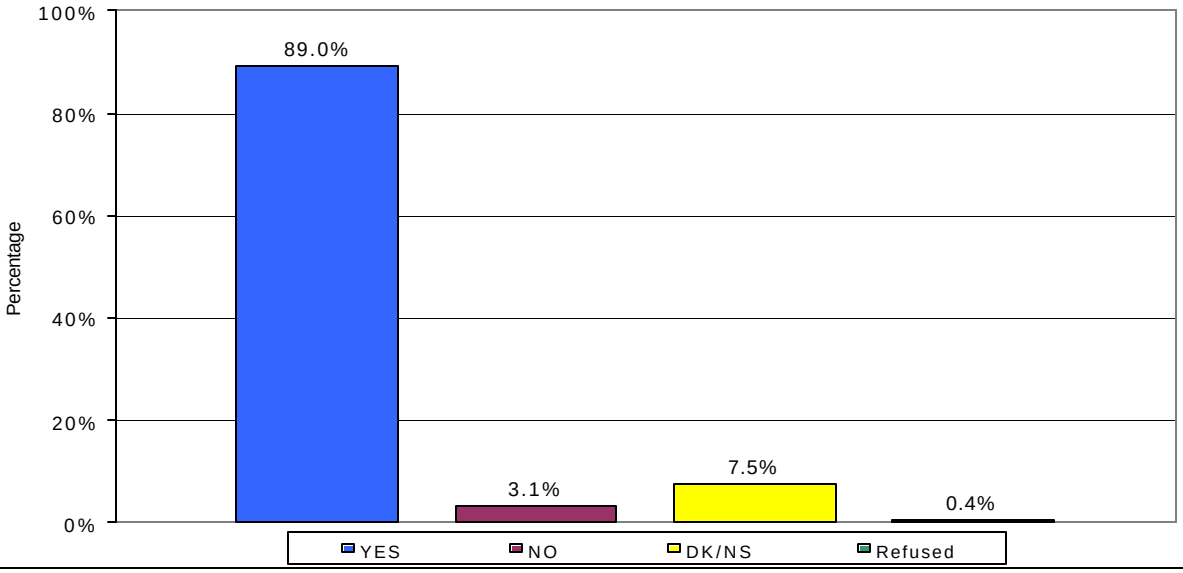


Question 7. True or False? There are medical treatments available that are intended to help a person who is infected with HIV to live longer.

This question is designed to reflect knowledge in the general population about this issue. Eighty-nine percent (89.0%) of the respondents answered yes to this question (Figure 7.1*). The percentages were almost the same when stratified by males (89.0%) and females (89.1%) (Figure 7.2). When stratified by racial/ethnic groups (Figure 7.3), 90.1% of Whites, 84.7% of Blacks, and 82.3% of Hispanics answered yes to the question. Among age groups (Figure 7.4), the 18-24, 25-34, 35-44, and 45-54 age groups all answered yes at percentages at or above the general population average of (89.0%). Only the 55-64 age group fell below this level at 83.9%. Stratification by education level reflects a positive relationship (as education rises so does the belief) between education and percentage of the respondents that believe there are medical treatments available that are intended to help a person who is infected with HIV to live longer (Figure 7.5). Understanding of this issue is slightly higher among the highest income category (96.0%) surveyed than among the lowest income category surveyed (87.3%) (Figure 7.6).

* Note: DK/NS represent “Don’t Know/Not Sure” from answers in questionnaire.

Figure 7.1. Percentage of Respondents that Know Medical Treatments Are Available To Help a Person Live Longer With AIDS, Missouri 2002



Source: http://apps.nccd.cdc.gov/brfss/page.asp?cat=HV&yr=2002&state=MO#HV. Accessed May 2004.

Figure 7.2. Percentage of Respondents that Know Medical Treatments Are Available To Help a Person Live Longer With AIDS, by Sex, Missouri 2002

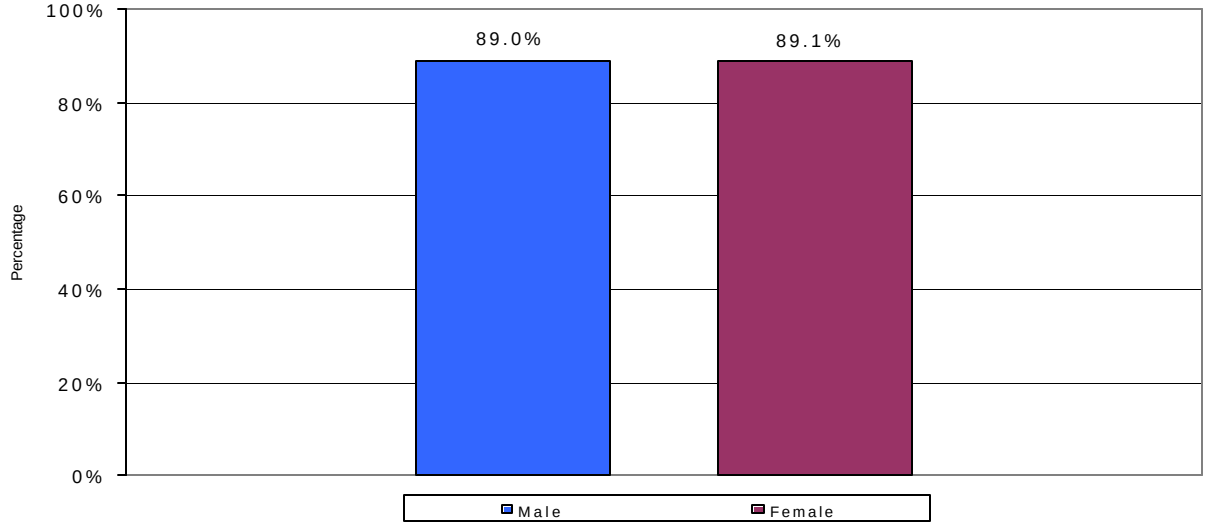


Figure 7.3. Percentage of Respondents That Know Medical Treatments Are Available To Help a Person Live Longer With AIDS, by Race, Missouri 2002

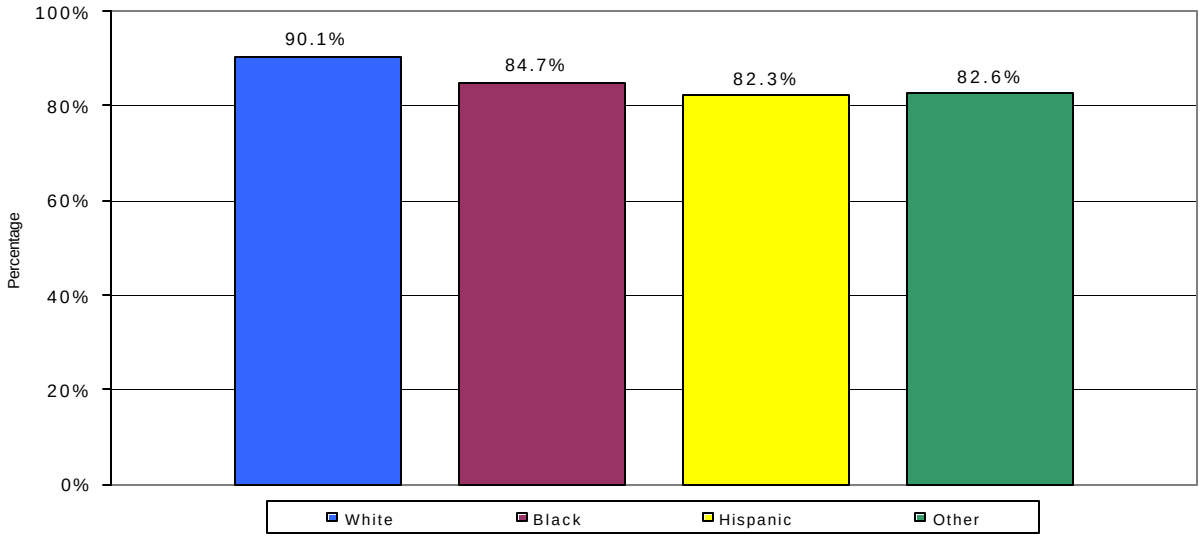
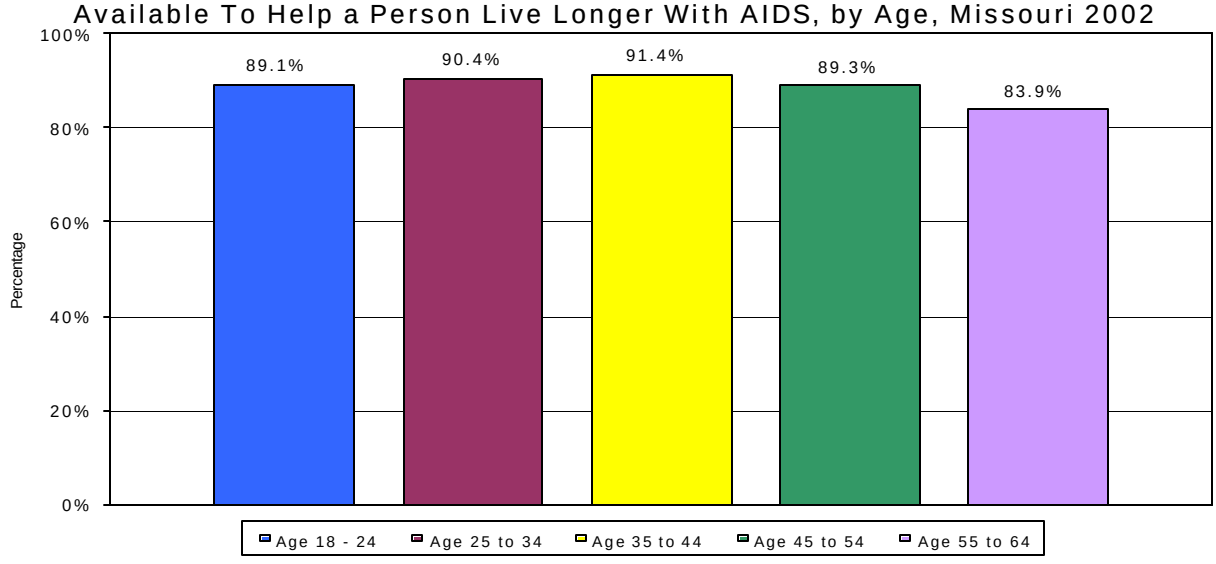


Figure 7.4. Percentage of Respondents That Know Medical Treatments Are Available To Help a Person Live Longer With AIDS, by Age, Missouri 2002



Source: http://apps.nccd.cdc.gov/brfss/page.asp?cat=HV&yr=2002&state=MO#HV. Accessed May 2004.

Figure 7.5. Percentage of Respondents that Know Medical Treatments Are Available To Help a Person Live Longer With AIDS, by Ethnicity, Missouri 2002

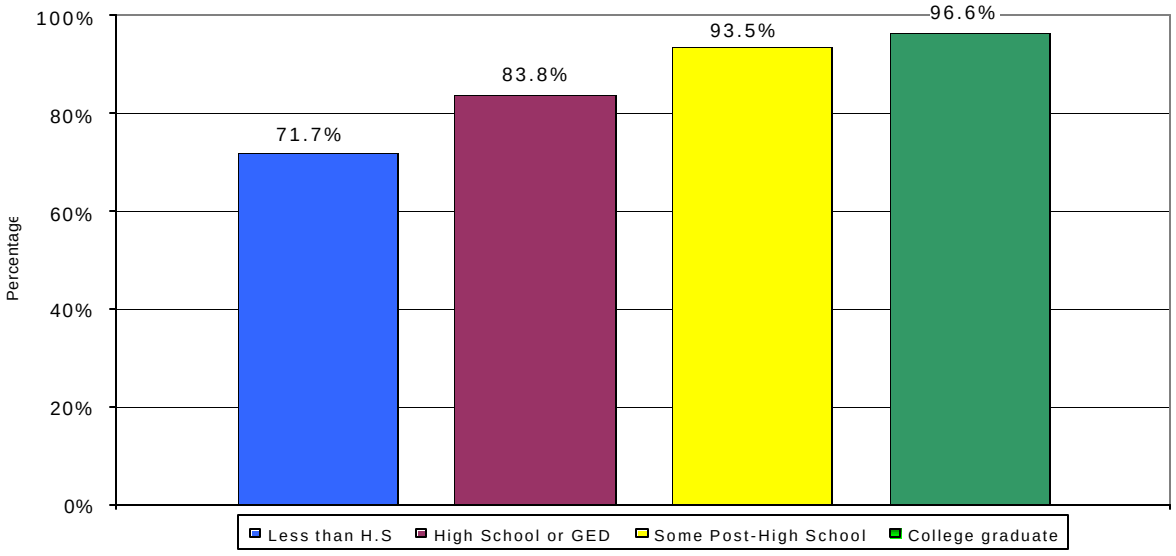
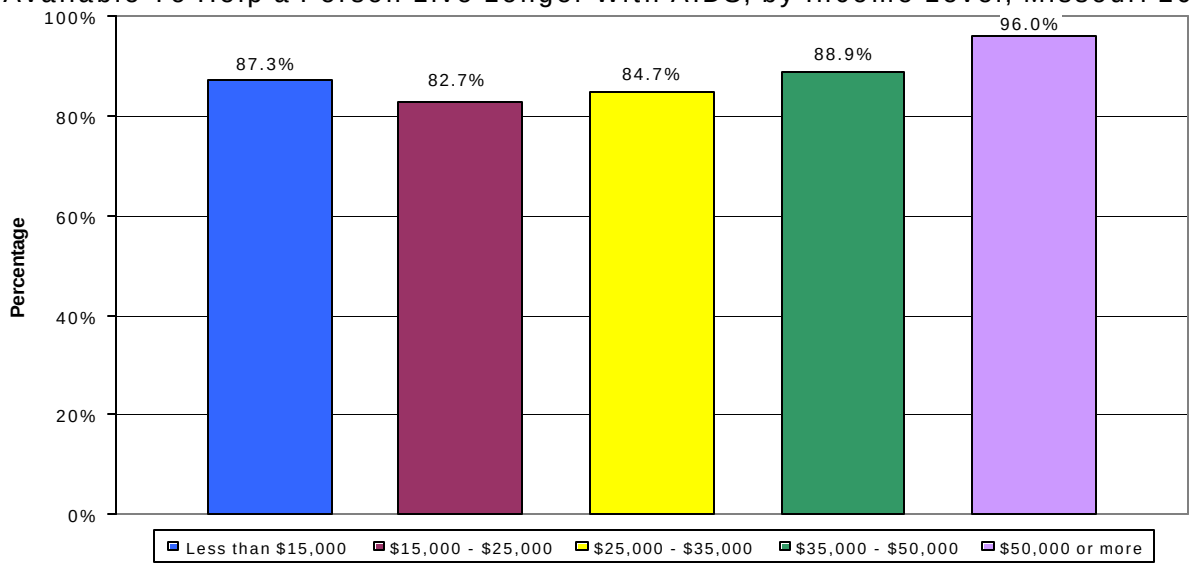


Figure 7.6. Percentage of Respondents That Know Medical Treatments Are Available To Help a Person Live Longer With AIDS, by Income Level, Missouri 2002



Question 8. True or False? A pregnant woman with HIV can get treatment to help reduce the chances that she will pass the virus on to her baby.

This question is designed to reflect knowledge in the general population about this issue. Overall, only 47.6% of the respondents answered yes to this question (Figure 8.1*). Almost 17.0% answered no and 31.9% stated they did not know or were not sure. Overall, 48.7% answered no or did not know the answer. Stratifying the responses by sex indicates that of the respondents, who answered yes, 53.6% were female and 44.8% were male (Figure 8.2). In general, the older the respondent the less likely they were to answer yes (Figure 8.3). Black respondents in the general population did better on this question than other racial/ethnic groups surveyed, with 60.5% answering yes (Figure 8.4). The more education a respondent had the more likely they were to answer yes, with 55.4% of college graduates giving a correct answer, but only 40.7% of respondents with less than a high school education saying yes (Figure 8.5). When the respondents are stratified by income, the lowest income group had the highest number of respondents answering yes (60.1%) (Figure 8.6).

* Note: DK/NS represent "Don't Know/Not Sure" from answers in questionnaire.

Source: http://apps.nccd.cdc.gov/brfss/page.asp?cat=HV&yr=2002&state=MO#HV. Accessed May 2004.

Figure 8.1. Percentage of Respondents that Believe a Pregnant Woman With HIV Can Get Treatment That will Reduce the Chances of Passing the Virus to the Baby, Missouri 2002

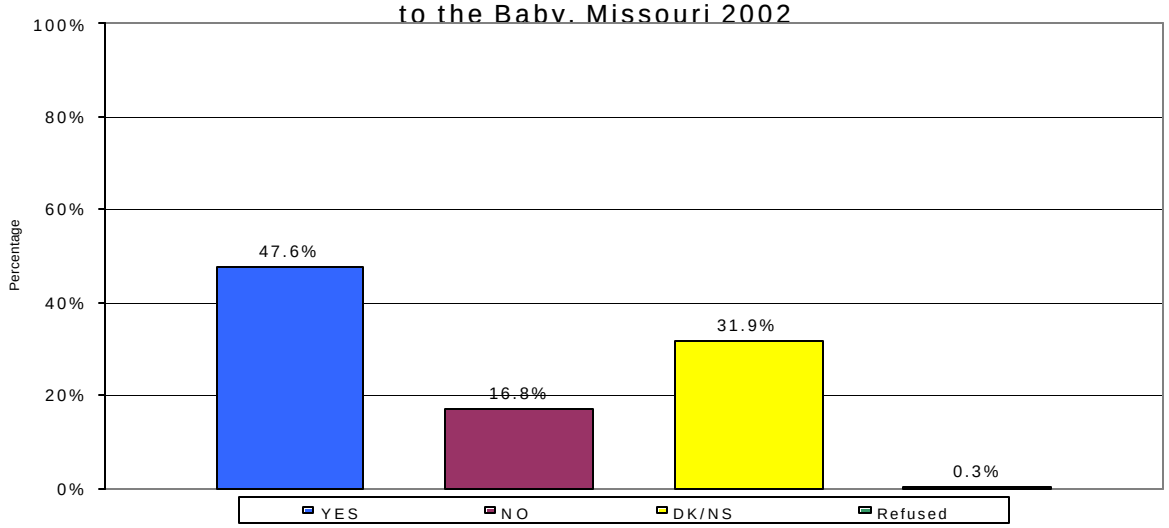


Figure 8.2. Percentage of Respondents that Believe a Pregnant Woman With HIV Can Get Treatment That will Reduce the Chances of Passing the Virus to the Baby, by Sex, Missouri 2002

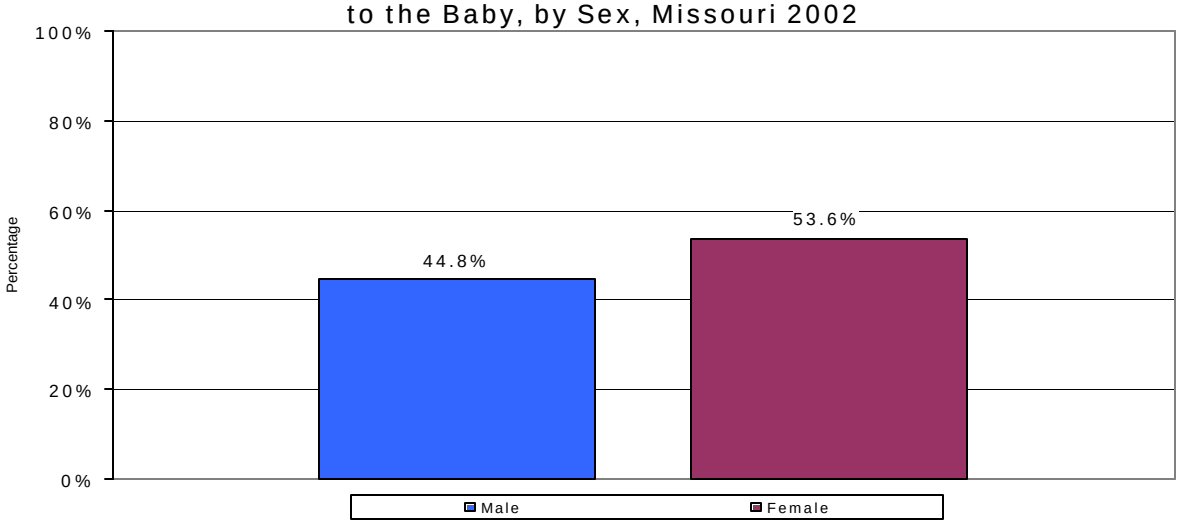
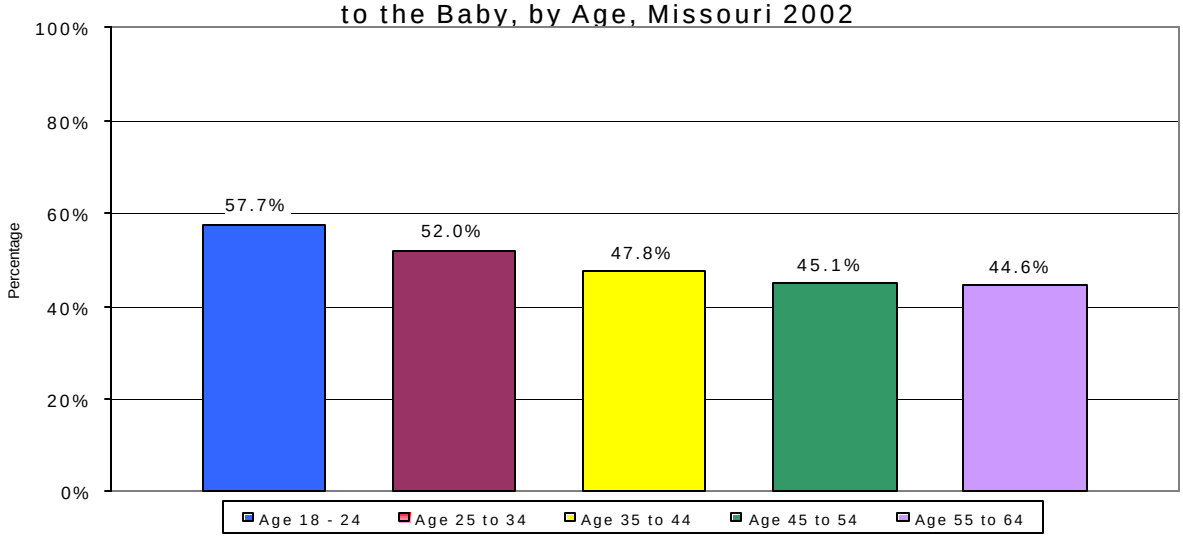


Figure 8.3. Percentage of Respondents That Believe a Pregnant Woman With HIV Can Get Treatment That will Reduce the Chances of Passing the Virus to the Baby, by Age, Missouri 2002



Source: http://apps.nccd.cdc.gov/brfss/page.asp?cat=HV&yr=2002&state=MO#HV. Accessed May 2004.

Figure 8.4. Percentage of Respondents That Believe a Pregnant Woman With HIV Can Get Treatment That will Reduce the Chances of Passing the Virus to the Baby, by Race, Missouri 2002

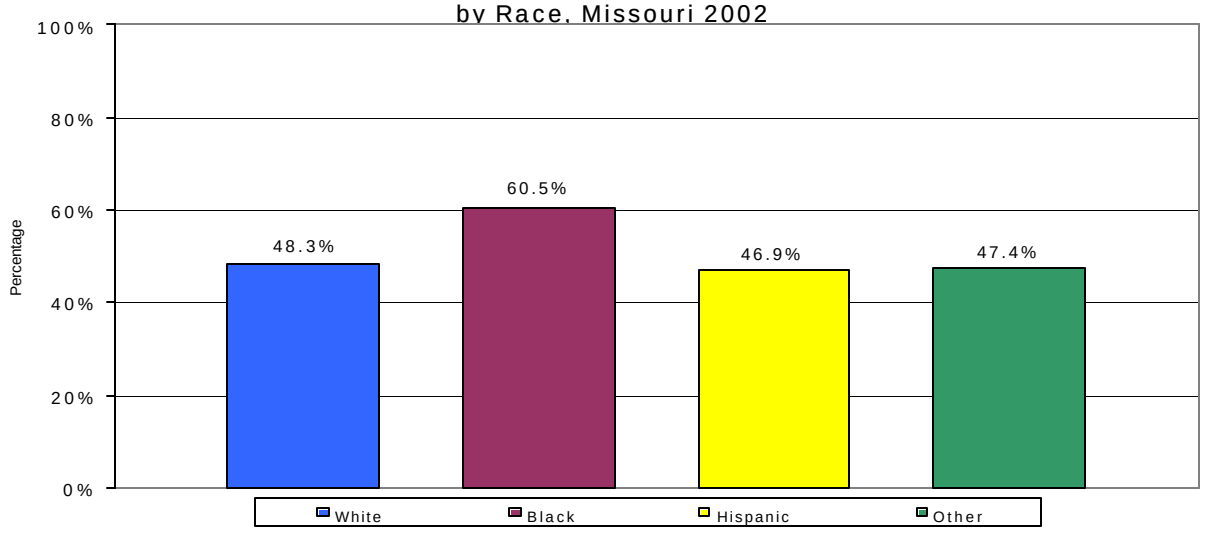


Figure 8.5. Percentage of Respondents That Believe a Pregnant Woman With HIV Can Get Treatment That will Reduce the Chances of Passing the Virus to the Baby, by Education Level, Missouri 2002

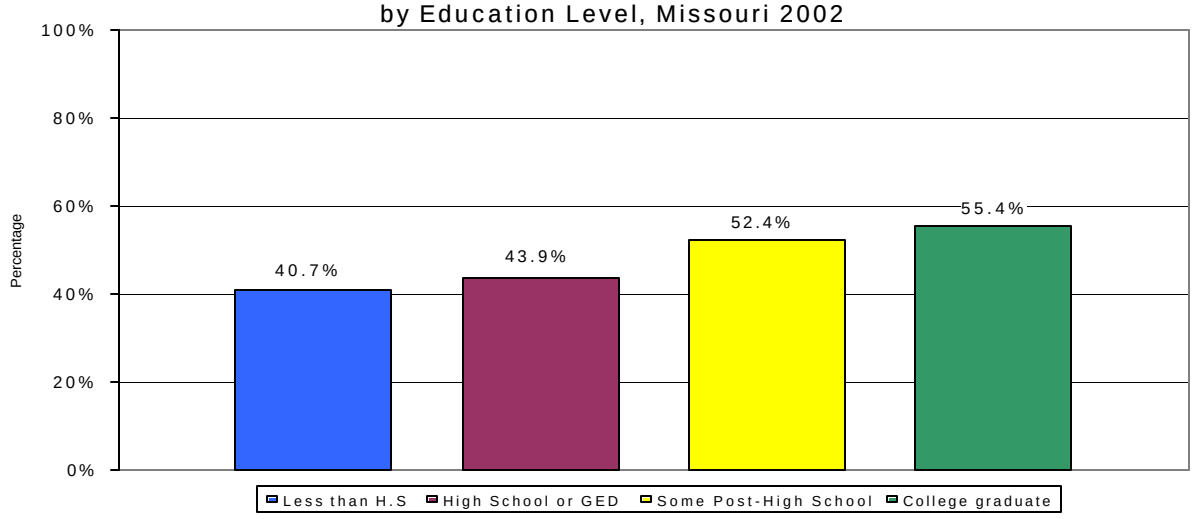
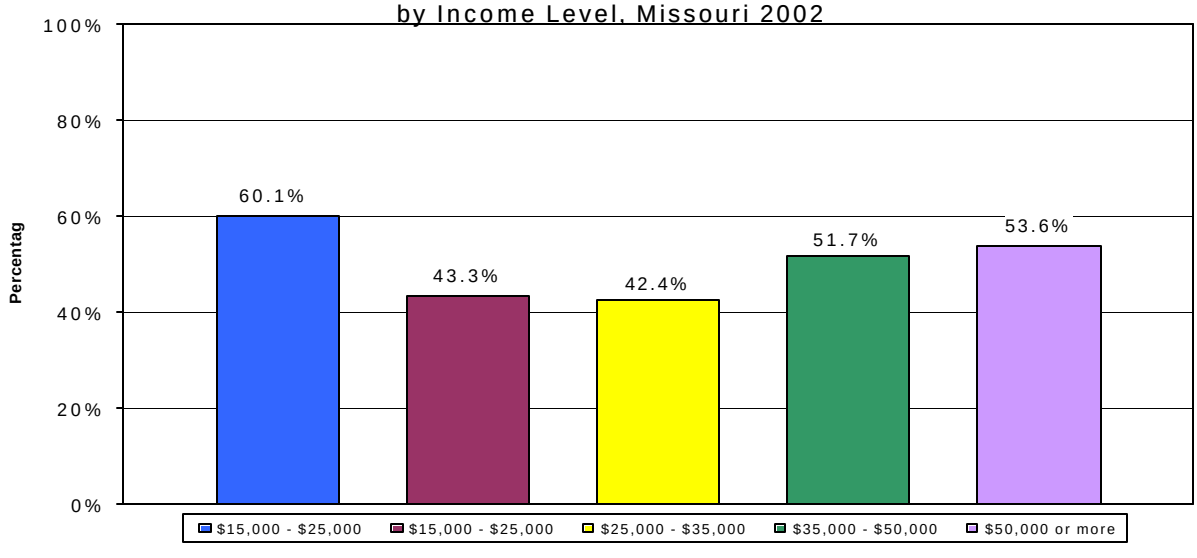


Figure 8.6. Percentage of Respondents That Believe a Pregnant Woman With HIV Can Get Treatment That will Reduce the Chances of Passing the Virus to the Baby, by Income Level, Missouri 2002



Source: http://apps.nccd.cdc.gov/brfss/page.asp?cat=HV&yr=2002&state=MO#HV. Accessed May 2004.

Question 9. In the past 12 months has a doctor, nurse or other health professional talked to you about preventing sexually transmitted diseases through condom use?

This question is designed as a measure of activities among health professionals to educate the general population about this issue. Only 11% of the respondents said yes to this question (Figure 9.1), with a larger number of females saying yes (13.2%) than males (8.7%) (Figure 9.2). By far, 18-24 year olds responded yes to this question (38.1%) more often than any other age group (Figure 9.3). Thirty-six percent of Blacks stated that a health professional had discussed condom use with them to prevent STDs, with 20.4% of Hispanics answering yes (Figure 9.4). More respondents with less than a high school education (20.8%) responded yes to this question, than any of the other educational categories surveyed (Figure 9.5), and more respondents with income less than $15,000 (22.4%) responded yes to this question than any other group based on income level (Figure 9.6).

Figure 9.1. Percentage of Respondents Who Stated That In the Past 12 Months a Health Professional Had Spoken to Them About Preventing STDs with Condom Use, Missouri 2002

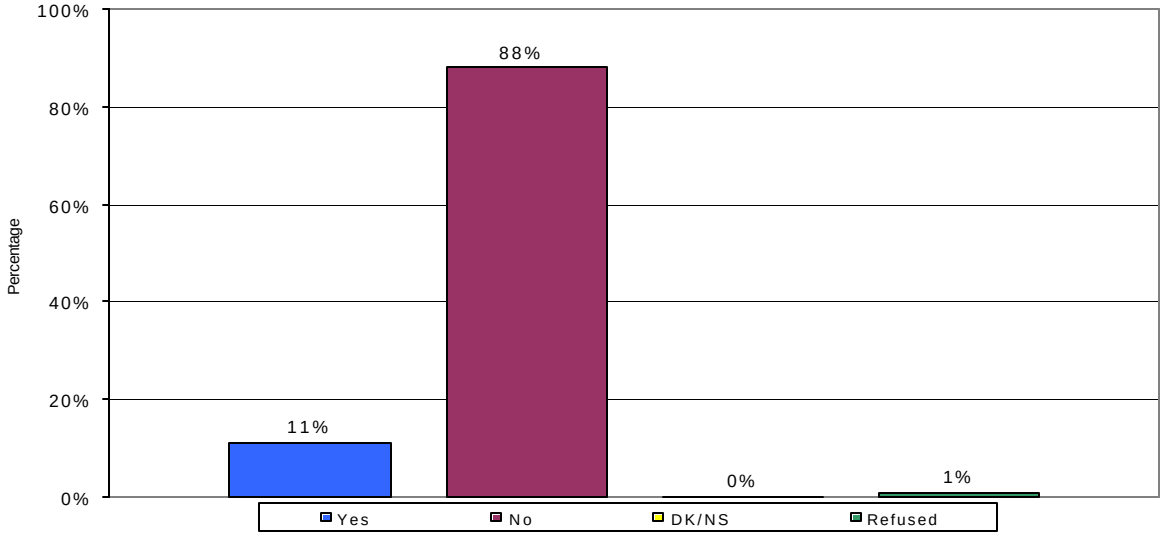
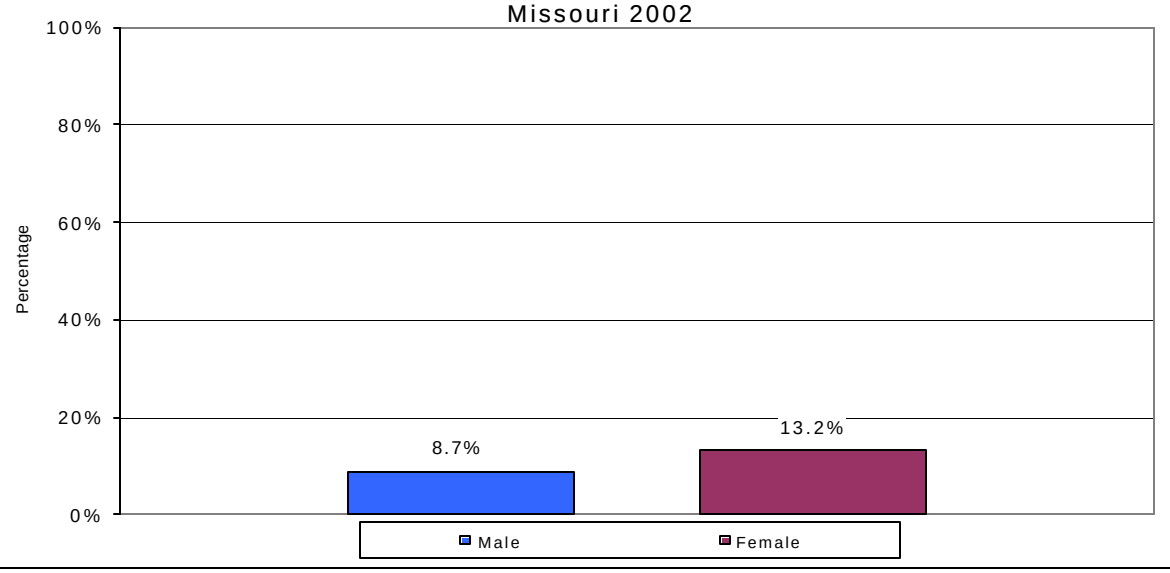


Figure 9.2. Percentage of Respondents Who stated that In the Past 12 Months a Health Professional Had Spoken to Them About Preventing STDs with Condom Use, by Sex, Missouri 2002



Source: http://apps.nccd.cdc.gov/brfss/page.asp?cat=HV&yr=2002&state=MO#HV. Accessed May 2004.

Figure 9.3. Percentage of Respondents Who Stated That In The Past 12 Months a Health Professional Had Spoken to Them About Preventing STDs with Condom Use, by Age, Missouri 2002

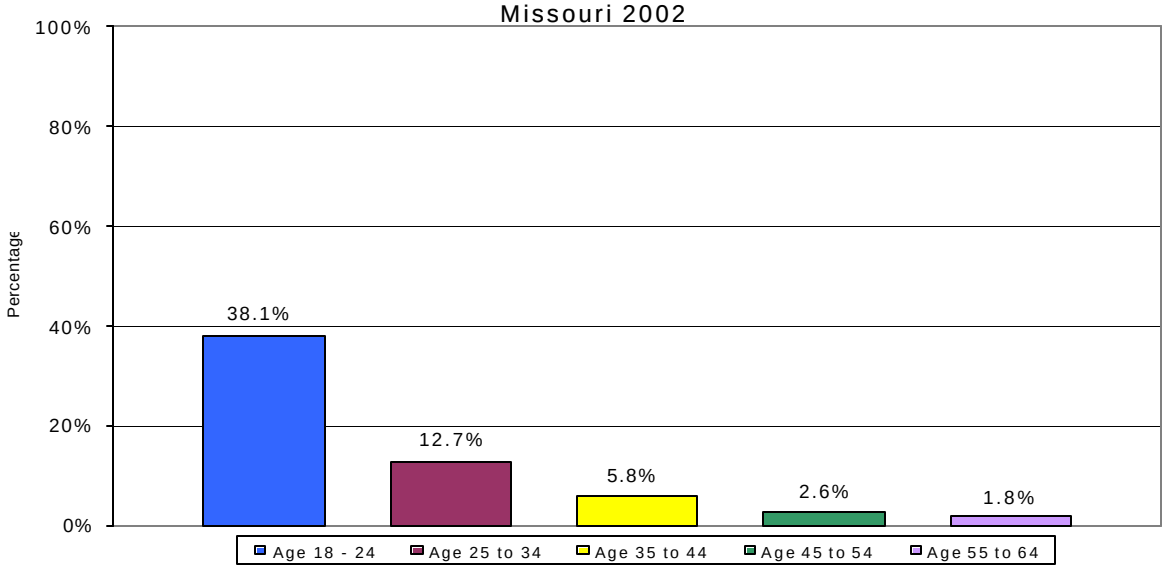
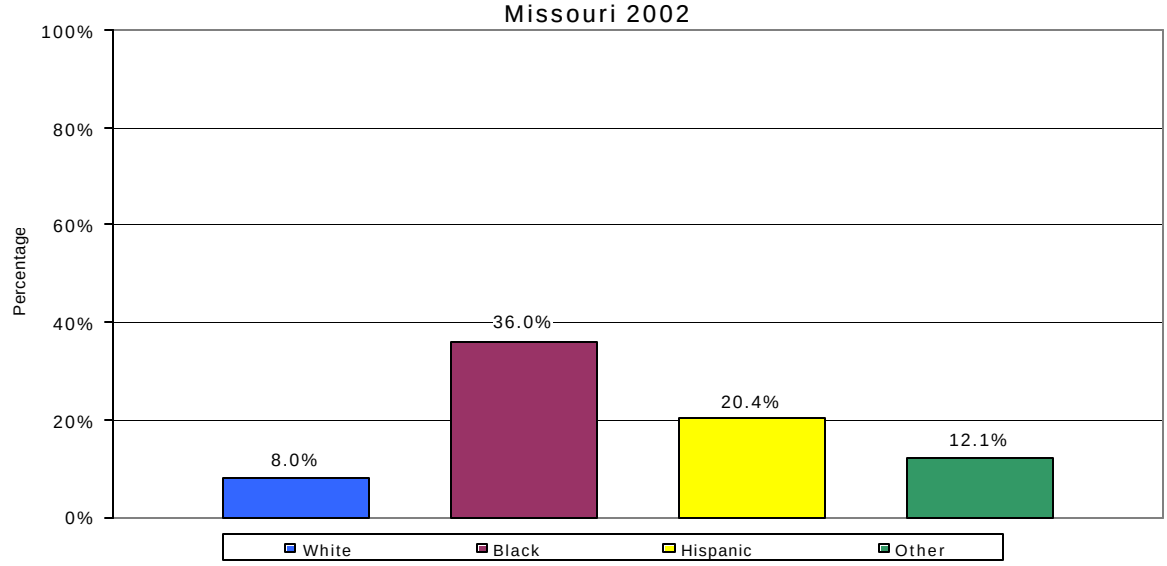


Figure 9.4. Percentage of Respondents Who Stated That In the Past 12 Months a Health Professional Had Spoken to Them About Preventing STDs with Condom Use, by Race, Missouri 2002



Source: http://apps.nccd.cdc.gov/brfss/page.asp?cat=HV&yr=2002&state=MO#HV. Accessed May 2004.

Figure 9.5. Percentage of Respondents Who Stated That In the Past 12 Months a Health Professional Had Spoken to Them About Preventing STDs with Condom Use, by Education Level, Missouri 2002

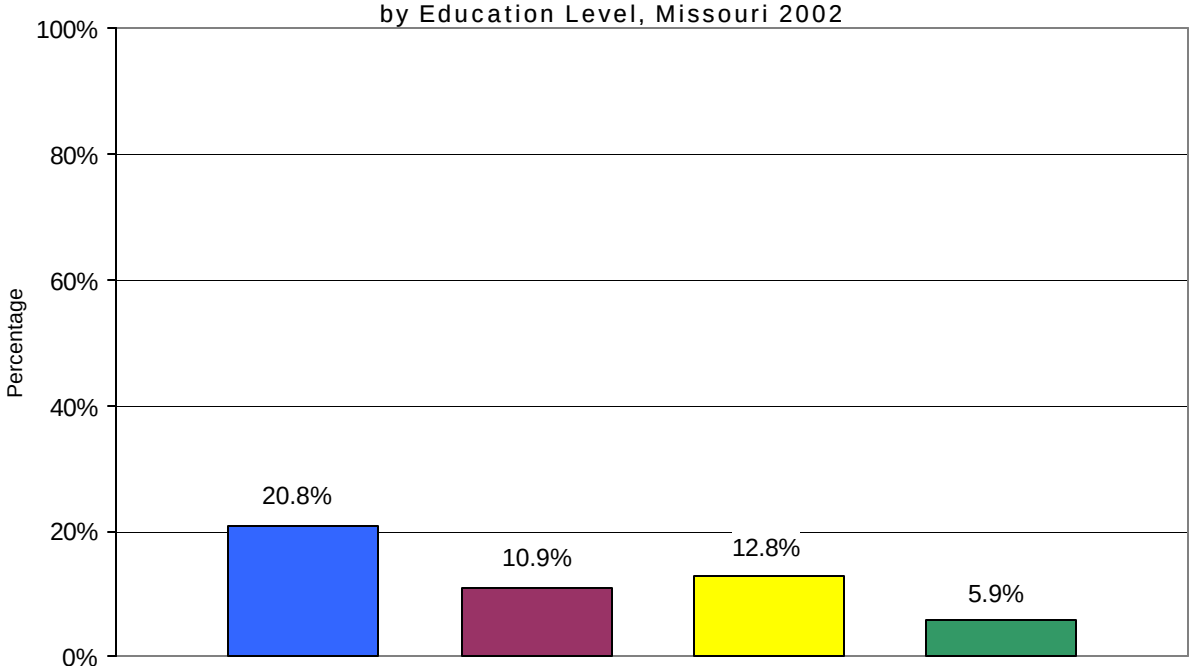
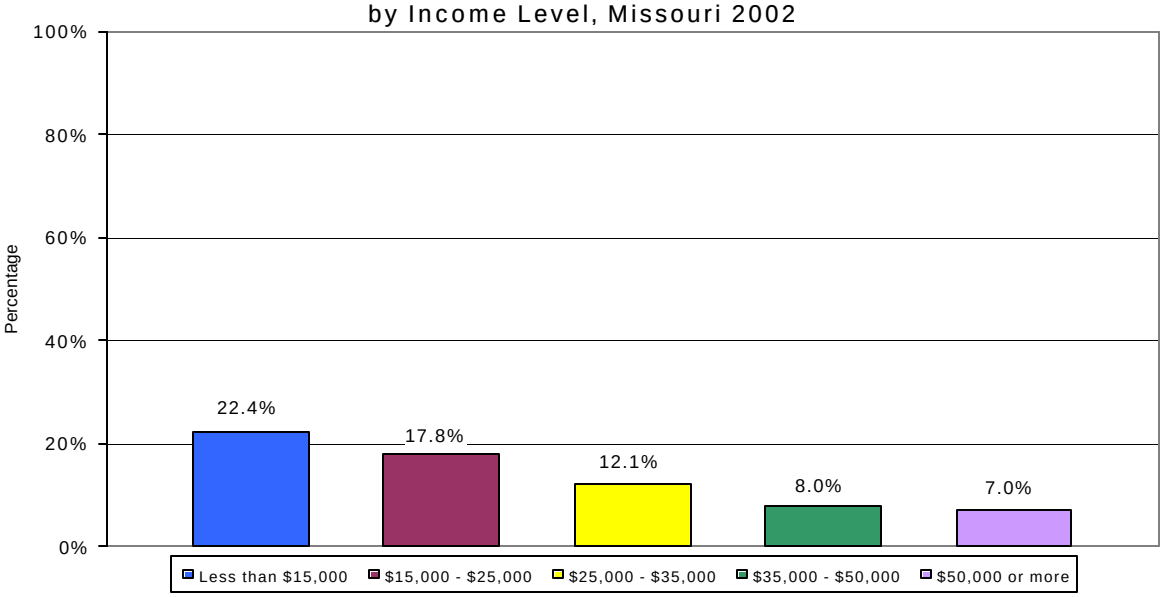


Figure 9.6. Percentage of Respondents Who Stated That In the Past 12 Months a Health Professional Had Spoken to Them About Preventing STDs with Condom Use, by Income Level, Missouri 2002



Source: http://apps.nccd.cdc.gov/brfss/page.asp?cat=HV&yr=2002&state=MO#HV. Accessed May 2004.

Missouri Youth Risk Behavior Surveillance System (MOYRBSS): Results From HIV/AIDS-Related Questions—2003[1]

[1] Centers for Disease Control and Prevention (CDC). *Youth Risk Behavioral Surveillance System Survey Data*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2003. Data analysis provided by CDC. Source: http://apps.nccd.cdc.gov/yrbss/SelQuestyear.asp?cat=4&desc= Sexual%20Behaviors&loc=MO. Accessed May 2004.

Missouri Youth Risk Behavior Surveillance System, 2003

The Youth Risk Behavior Survey (YRBS) is administered by the Missouri Department of Elementary and Secondary Education to monitor specific behaviors among high school students that contribute to the leading causes of morbidity and mortality. The survey is administered in the spring of odd-numbered years. In 2003, students in public high schools participated. The school response rate was 80 percent, and the student response rate was 84 percent. Survey administration procedures assured the privacy and confidentiality of all participating students. Student participation was voluntary, and local parental permission procedures were followed. The students who participated in the survey constituted a valid sample of high school-age youth. The results may be used to make inferences about the health-risk behaviors of all Missouri public high school students.

Strengths of the Youth Risk Behavior Survey

Objectivity and reliability

Behaviors are the sole focus of the YRBS because of the direct relationship between behaviors and health outcomes. The strength of this relationship holds regardless of age, geographical location, income, education, gender, race, family characteristics, religion, attitudes, knowledge, skills, social competence, self-esteem, or other determinants.

Comparability to external populations

Nationally representative YRBS data and data from 45 states and territories and 16 of the largest school districts, rather than data from an unrepresentative convenience sample, are available as points of comparison to data collected by state education agencies.

Generalize-able to state populations

The YRBS is a scientifically validated survey in which randomly selected ninth through twelfth grade students from randomly selected high schools participate. When sufficient responses are obtained, as they have been in Missouri since 1995, results may be generalized to the entire state population of public school students in grades 9 - 12.

Comparability over time

Since the YRBS is a continual and stable national public health monitoring system, it produces credible data that can be used to assess trends in priority health risk behavior over time.

Efficiency

The use of a sample rather than a census of schools and students reduces the burden placed on states, districts, schools, parents, and students. Furthermore, the YRBS can easily be administered in one class period.

Source: http://apps.nccd.cdc.gov/yrbss/SelQuestyear.asp?cat=4&desc= Sexual%20Behaviors&loc=MO. Accessed May 2004.

Results

Just over 52.0% of high school students reported in 2003 that they have had sexual intercourse at some time in their life (Figure 1) .

Over 9.0% report they have been physically forced to have sexual intercourse at some time in their life (Figure 2).

Most high school students (13.5%) reported that they first had sexual intercourse at age 15, with age 16 the second highest group (12.3%) and age 14 the next highest at 10.8%. Over one-third (36.6%) of Missouri high school students have sexual intercourse at age 14, 15, or 16 (Figure 3).

In the three months prior to answering the questionnaire, 27.7% of high school students had sexual intercourse with one partner, while 11.5% have had sexual intercourse with two or more partners (Figure 4).

In their lifetime, 19.4% of high school students have had sexual intercourse with only one partner, while 26.6% have had sexual intercourse with two or more partners (Figure 5).

Among students who had sexual intercourse during the past three months, almost one-third (32.7%) stated they did not use a condom, and among students who had ever had sexual intercourse, 15.9% stated they had not used a condom during their last sexual intercourse (Figure 6).

Slightly more than 13% (13.2%) of high school students reported they drank alcohol or used drugs before their last sexual intercourse (Figure 7).

The data in Figure 8 represent those high school students who have never had sex, are not defined as sexually active (sex with one or more partners in the last three months), or used a condom during their last sexual intercourse. These variables are combined to determine those individuals who are not engaging in risky sexual behavior. Over 87% (87.5%) of the student respondents are not engaging in high risk sexual behavior, and 12.5% are engaging in high risk sexual behavior.

When asked about condom use, 47.9% of the respondents said they had never had sexual intercourse, 36.2% said they did use a condom during their last sexual intercourse, and 15.9% said they did not use a condom (Figure 9).

Also, 1.3% of Missouri high school students reported ever using a needle to inject illegal drugs (Figure 10).

Over 90.0% of the students stated they have been taught about HIV or AIDS infection in school (Figure 11).

Figure 1. Percentage of High School Students who Report Ever Having Sexual Intercourse, Missouri 2003

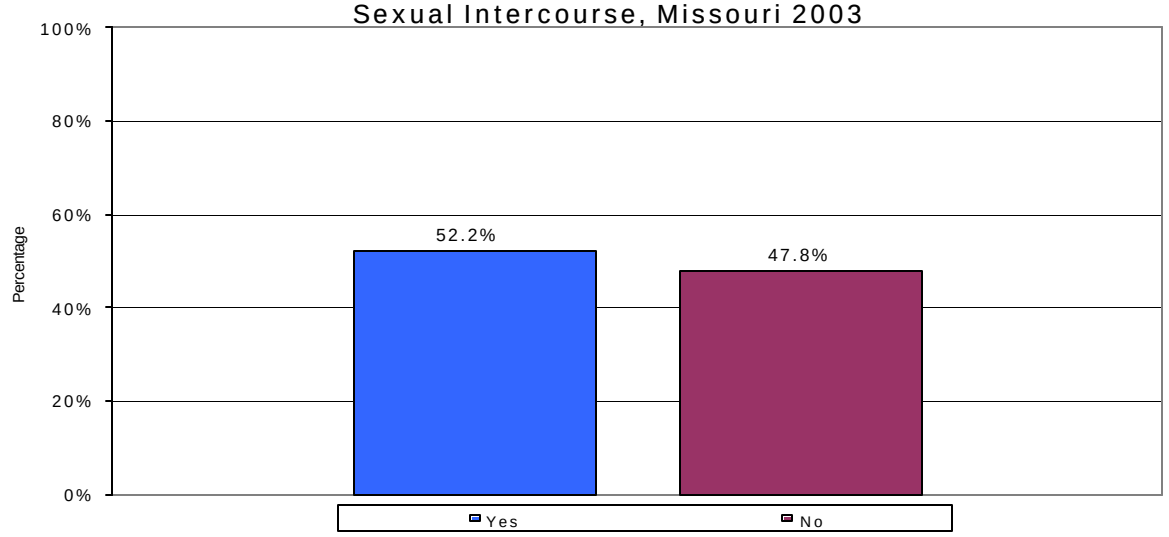


Figure 2. Percentage of High School Students who Report Ever Being Physically Forced to have Sexual Intercourse, Missouri 2003

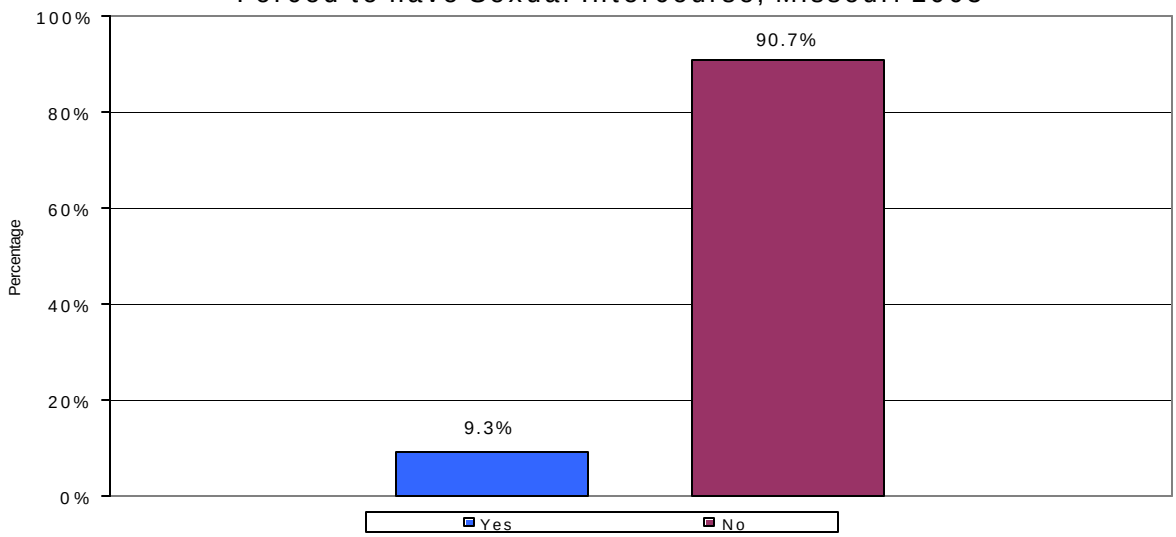
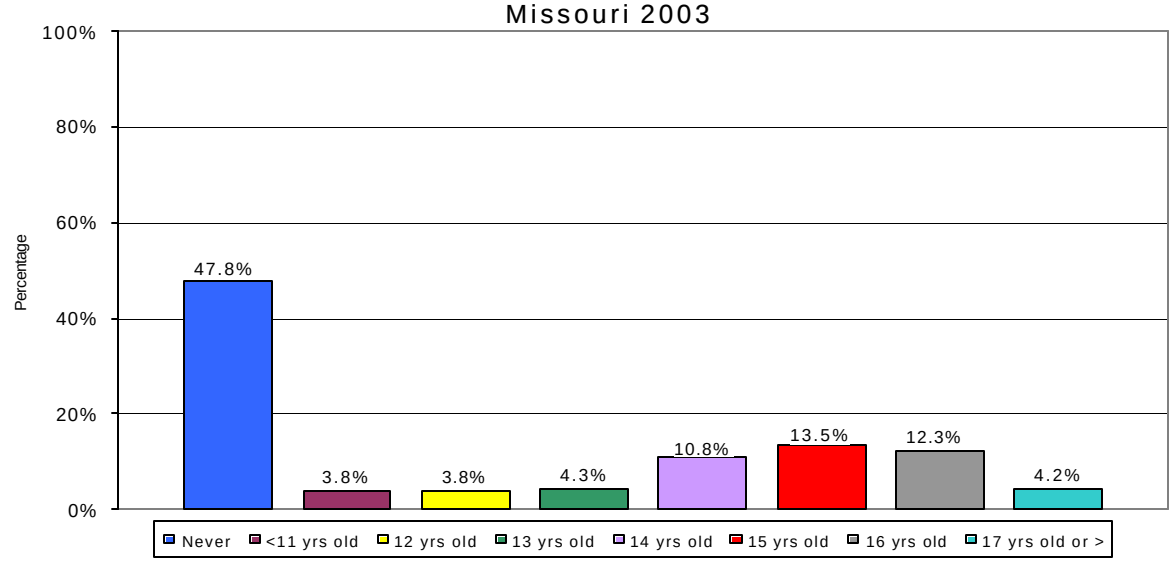


Figure 3. Age High School Students Report Having First Sexual Intercourse, Missouri 2003



Source: http://apps.nccd.cdc.gov/yrbss/SelQuestyear.asp?cat=4&desc= Sexual%20Behaviors&loc=MO. Accessed May 2004.

Figure 4. Number of Sexual Partners Reported by High School Students for the Last 3 Months, Missouri 2003

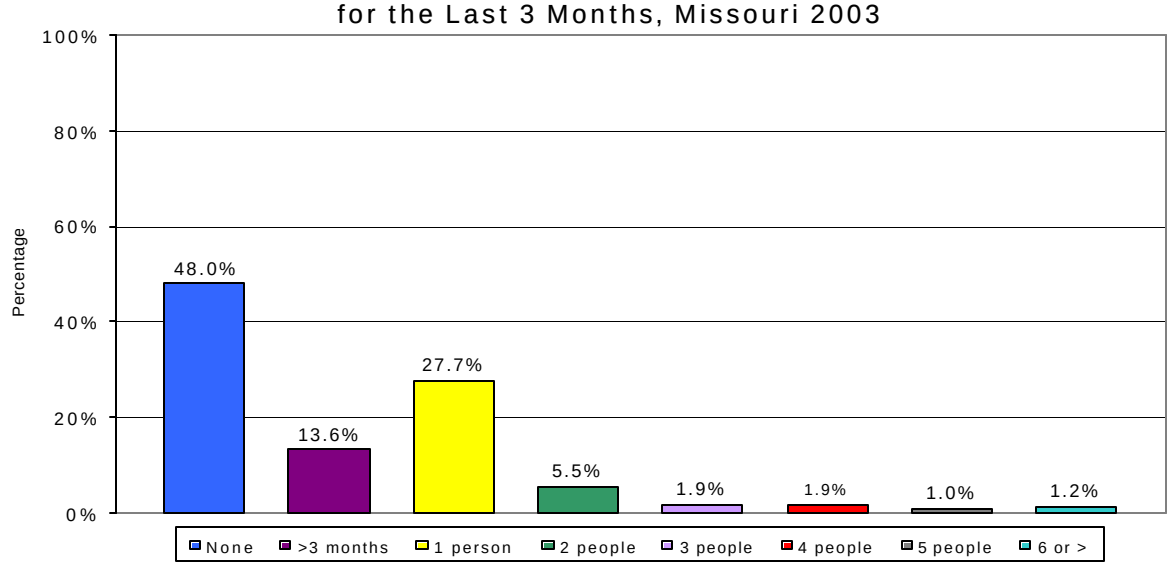


Figure 5. Reported Number of Life-Time Sexual Partners Among High School Students, Missouri 2003

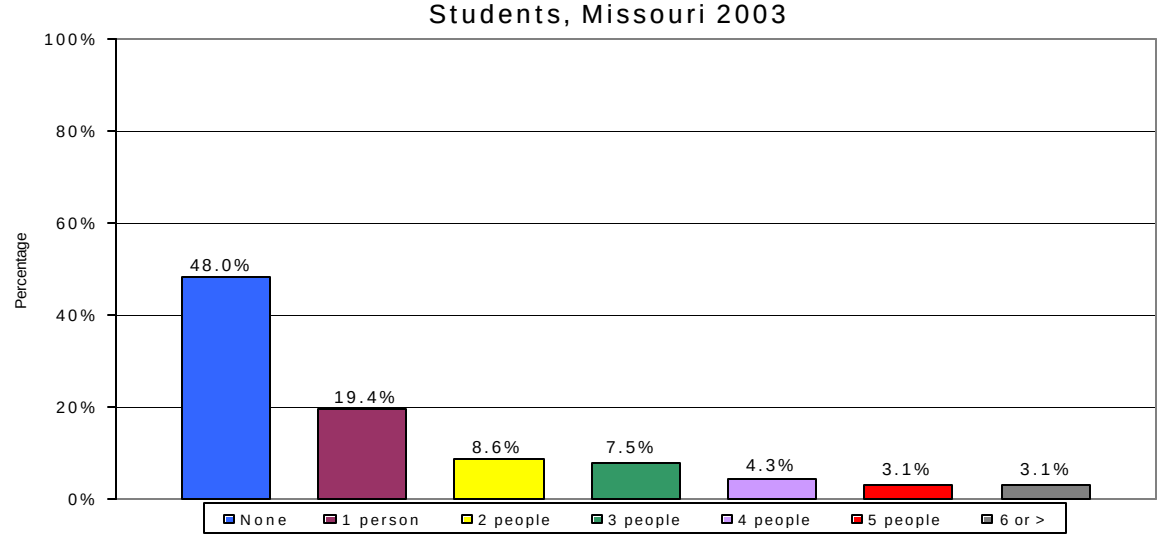
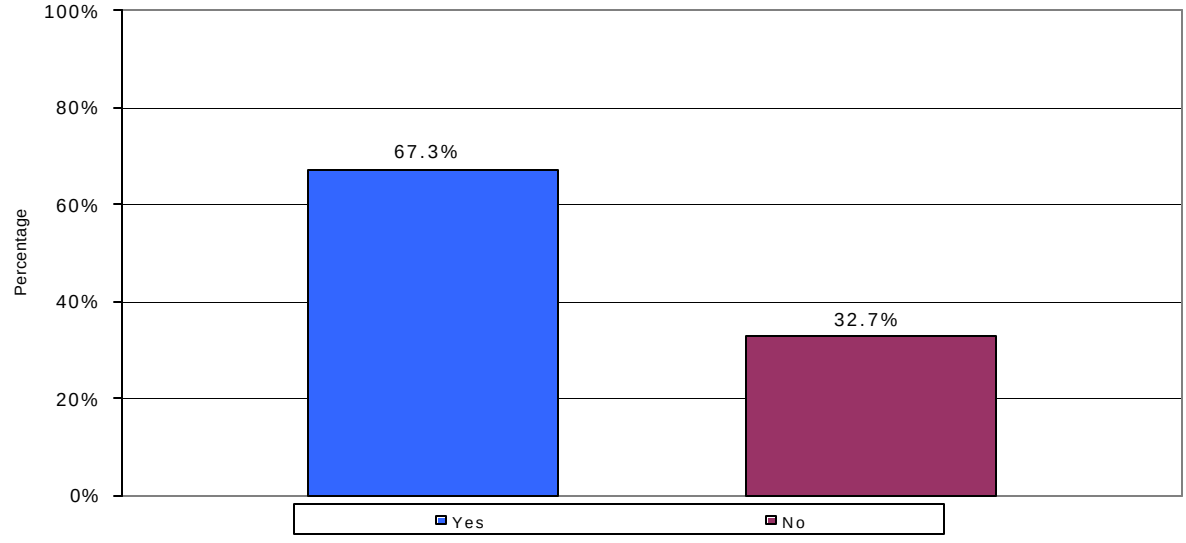


Figure 6. Of High School Students Who had Sexual Intercourse During the Past Three Months, the Percentage who Report Using a Condom, Missouri 2003



Source: http://apps.nccd.cdc.gov/yrbss/SelQuestyear.asp?cat=4&desc= Sexual%20Behaviors&loc=MO. Accessed May 2004.

Figure 7. Percentage of High School Students who Report They Drank Alcohol or Used Drugs Before Last Sexual Intercourse, Missouri 2003

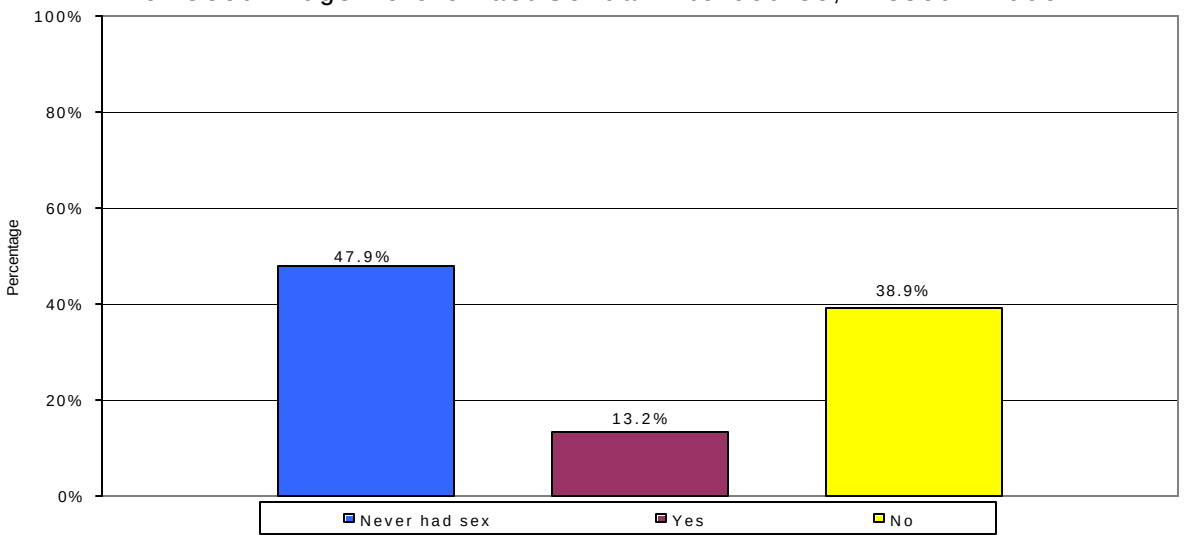


Figure 8. Percentage of High School Students who Report Never Had Sex, Didn't Have Sex in the Past 3 Months, or Used a Condom the Last Time They Had Sex, Missouri 2003

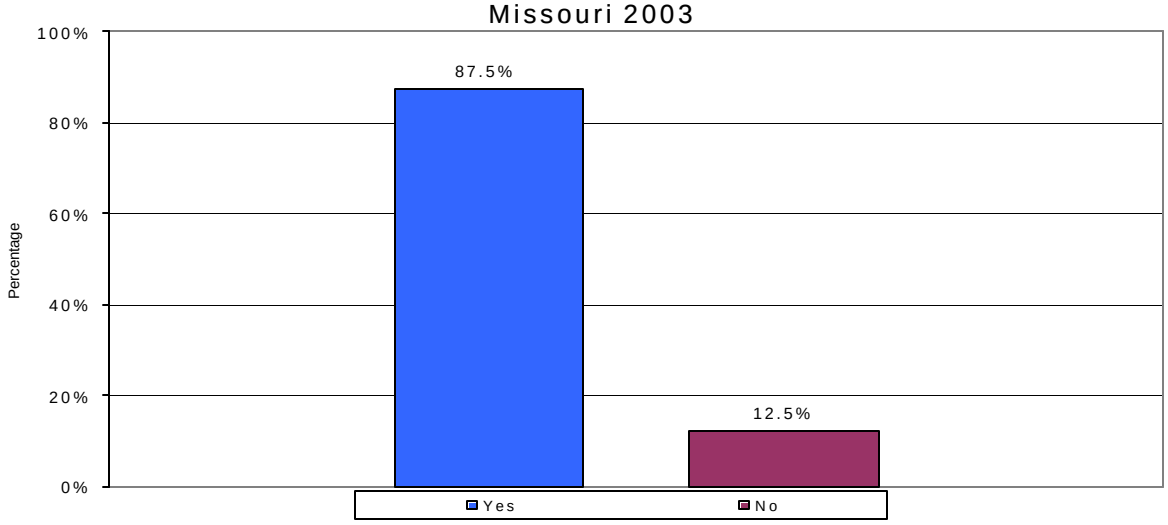
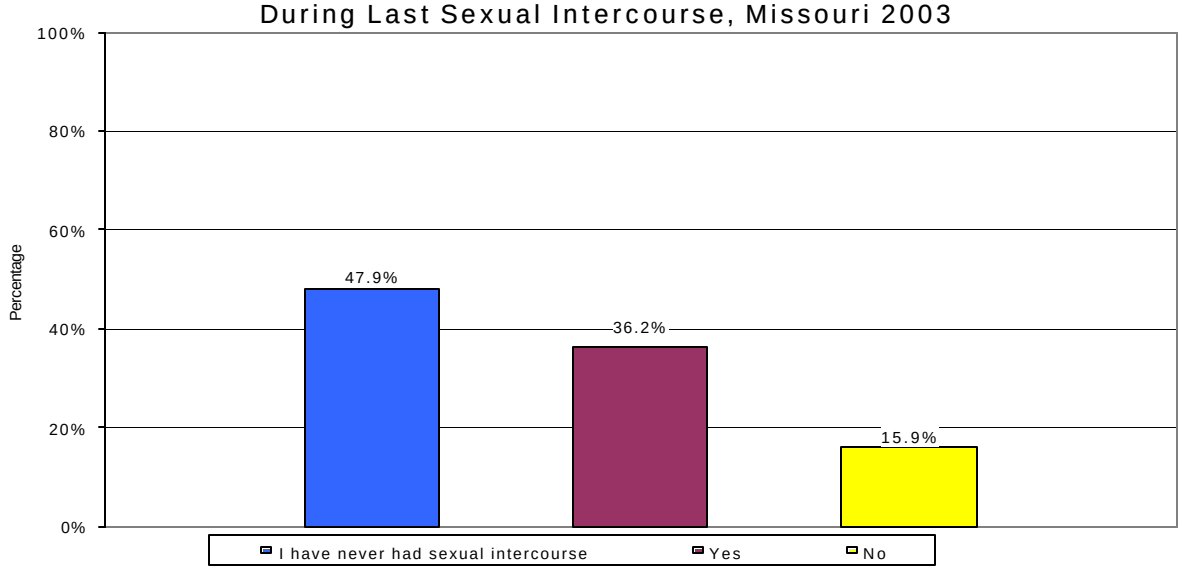


Figure 9. Percentage of High School Students Reporting Using a Condom During Last Sexual Intercourse, Missouri 2003



Source: http://apps.nccd.cdc.gov/yrbss/SelQuestyear.asp?cat=4&desc= Sexual%20Behaviors&loc=MO. Accessed May 2004.

Figure 10. Percentage of High School Students who Report Ever Using a Needle to Inject Illegal Drugs, Missouri 2003

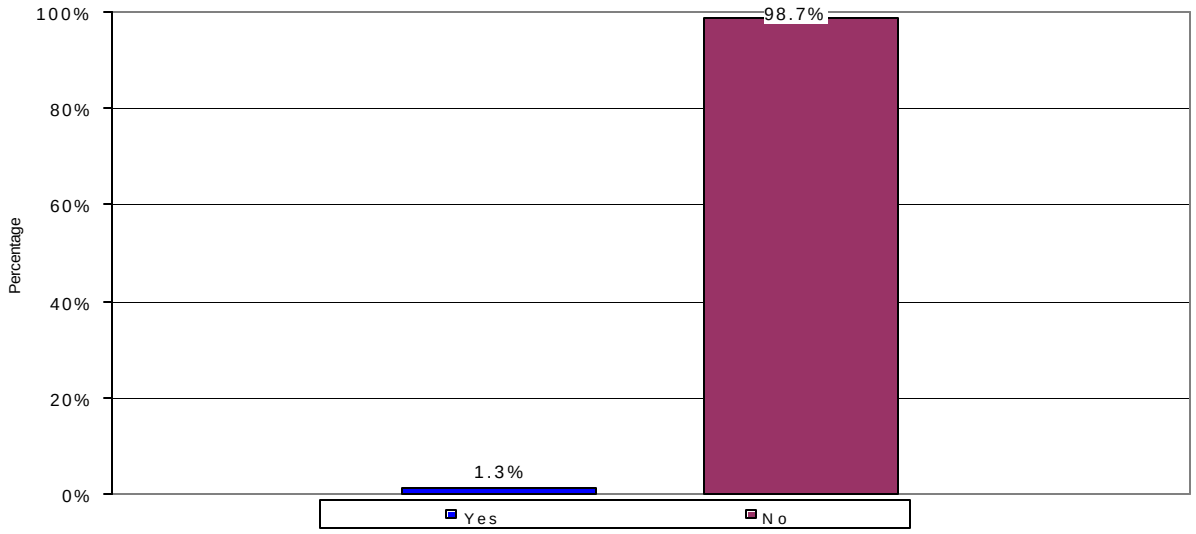
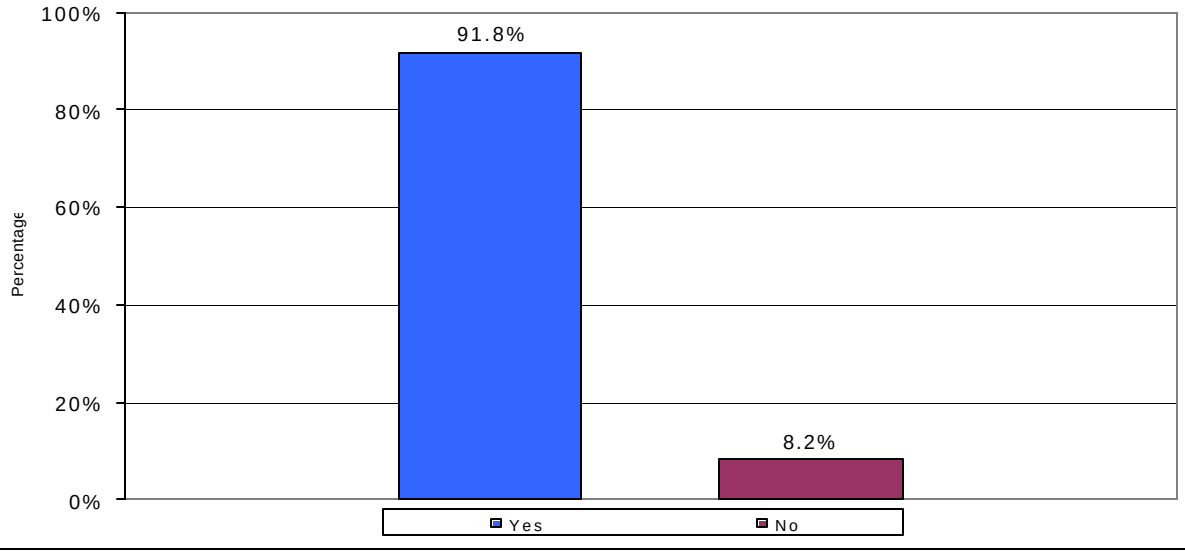


Figure 11. Percentage of High School Students who Report Being Taught About HIV or AIDS Infection in School, Missouri 2003



Source: http://apps.nccd.cdc.gov/yrbss/SelQuestyear.asp?cat=4&desc= Sexual%20Behaviors&loc=MO. Accessed May 2004.

2000 Missouri School Health Education Profile[1]

Missouri Department of Elementary and Secondary Education
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http://www.dese.state.mo.us/

May 2001

[1] For purposes of this document, only the questions related to HIV/AIDS are presented here. The full report may be viewed at the website noted above, or by writing to Kevin Miller at the above address. Data analysis provided by Missouri Department of Elementary and Secondary Education.

Introduction

The School Health Education Profile is a survey designed to monitor the status of health education in public schools, including education to prevent HIV infection and other important health problems, at the middle, junior, and senior high school levels. The survey is conducted in the spring of even-numbered years[2] as a requirement for a cooperative agreement between the Missouri Department of Elementary and Secondary Education and the federal Centers for Disease Control and Prevention (CDC). The survey was first administered in 1994.

Survey methods

During the spring of 2000, questionnaires prepared by the CDC Division of Adolescent and School Health were sent to the principal and a designated lead health education teacher in 419 secondary schools in the state. Systemic equal probability sampling with a random start was used to select schools from all regular secondary public schools having at least one of the grades 6 through 12. Usable questionnaires were received from 334 principals and 335 teachers. The results from the questionnaires were weighted to permit generalization from the samples of 334 or 335 to the larger population of principals and lead health education teachers in schools offering grades 6 through 12 during the spring of 2000. The responses are representative of secondary principals and health education teachers in Missouri public schools and results may be used to develop policies and improve programs for school health education. Survey results were compiled in the following categories: (1) overall results for all schools, (2) middle school results for schools comprised primarily of grades 6 – 8, (3) junior/ senior high schools results for schools comprised primarily of grades 7 - 12, and (4) senior high school results for schools comprised primarily of grades 9 – 12. Not all data are reported in this publication. Key findings representing significant changes from the 1998 survey are reported and discussed.

Summary

Health education has improved in Missouri's public schools since the first School Health Education Profile was conducted in 1994. Schools are requiring more health classes and are teaching more of the knowledge and skills students need to make healthy choices. Many schools have implemented basic policies to support student health and safety, to support continuing professional development for health educators, and to involve communities in school health programs. Some areas of concern remain. Although the Missouri Assessment Program test in health and physical education is required in ninth grade, some schools still do not require any health education in grades six through nine.

While the percentage of health teachers who say they teach compassion and support for persons with AIDS has risen, the percentage of principals who say that their school has a policy protecting the rights of HIV-positive students and staff has declined. More schools than ever have active school health advisory counsels, but every school should have one so that parents, the local health department, students, minority groups, religious organizations, and other relevant groups can be involved in the health education program.

[2] At the date of this printing the report for the 2002 survey was not available.

Significant Findings

Positive changes documented as statistically significant by the 2000 survey include:

- An increase in teaching about HIV testing and counseling
- An increase in teaching compassion and support for persons with AIDS

Negative changes documented as statistically significant by the 2000 survey include:

- A decrease in the percentage of schools with a policy that protects the rights of HIV-positive students and staff

Recommendations

Recommendations based on the findings of the 2000 Missouri School Health Education Profile include:

- Every school should require at least one health course, in at least one of the following grades: 6, 7, 8, or 9.
- Schools should review their curricula, being cognizant of the fact that developmentally appropriate HIV/AIDS prevention education is required at every grade level by the Missouri School Improvement Program.[3]
- Schools that do not have a written communicable disease policy should adopt one.
- Schools should make sure that their communicable disease policies include protection of the rights of HIV-positive students and staff.
- Schools should increase support for health education in-service training, which is essential in a field that changes so rapidly.
- Schools should continue to support Coordinated School Health Programs through active school health advisory councils.

[3]Missouri Department of Elementary and Secondary Education Lead Health Education Teacher Questionnaire-Overall Results

1. During this school year, have teachers in this school tried to increase student knowledge on each of the following topics in a required health education course in any of grades 6 through 12?

	Number	Response Frequency	Percent[4]	95% Confidence Interval
HIV (human immunodeficiency virus) prevention	288	278	96	95 - 98
Human sexuality	298	252	84	81 - 88
STD (sexually transmitted disease) prevention	299	270	90	87 - 93

2. During this school year, did teachers in this school teach each of the following HIV prevention topics in a required health education course for students in any of grades 6 through 12?

	Number	Response Frequency	Percent	95% Confidence Interval
Abstinence as the most effective method to avoid HIV infection	286	268	93	91 - 96
How HIV is transmitted	287	271	94	92 - 96
How HIV affects the human body	289	267	92	90 - 95
How to correctly use a condom	291	81	28	24 - 32
Condom efficacy, that is, how well condoms work and do not work	290	199	68	64 - 72
Influence of alcohol and other drugs on HIV-related risk behaviors	286	253	88	85 - 91
Social or cultural influences on HIV-related risk behaviors	289	242	83	80 - 87
The number of young people who get HIV	288	231	80	76 - 84
How to find valid information or services related to HIV or HIV testing	287	223	78	74 - 81
Compassion for persons living with HIV or AIDS	290	222	76	72 - 80

[4] Percent is the percent of "Yes" responses.

3. Are required HIV prevention units or lessons taught in each of the following courses in this school?

	Number	Response Frequency	Percent	95% Confidence Interval
Science	312	120	39	35 - 43
Home economics or family and consumer education	322	162	50	46 - 54
Physical education	329	132	40	36 - 45
Family life education or life skills	320	145	45	41 - 49
Special education	305	65	21	18 - 25

4. Would you like to receive staff development on each of these health education topics?

	Number	Response Frequency	Percent	95% Confidence Interval
HIV (human immunodeficiency virus) prevention	345	214	62	58 - 66
Human sexuality	345	178	51	47 - 56
STD (sexually transmitted disease) prevention	344	209	60	56 - 65

Missouri Department of Elementary and Secondary Education School Principal Questionnaire-Overall Results

1. Has this school adopted a written policy that protects the rights of students and/or staff with HIV infection or AIDS?

	Number	Response Frequency	Percent	95% Confidence Interval
Yes	346	239	69	65 - 73

2. Does that policy address each of the following issues for students and/or staff with HIV infection or AIDS?

	Number	Response Frequency	Percent	95% Confidence Interval
Attendance of students with HIV infection	229	211	92	89 - 95
Procedures to protect HIV-infected students and staff from discrimination	231	225	97	96 - 99
Maintaining confidentiality of HIV-infected students and staff	231	228	99	97 - 100
Worksite safety	231	227	98	97 - 100
Confidential counseling for HIV-infected students	230	179	78	74 - 82
Communication of the policy to students, school staff, and parents	231	201	87	83 - 90
Adequate training about HIV infection for school staff	230	193	84	80 - 88
Procedures for implementing that policy	231	212	92	89 - 95

HIV/AIDS Care Planning

Background

HIV often leads to poverty due to costly health care or an inability to work that is often accompanied by a loss of employer-related health insurance. The Ryan White Comprehensive AIDS Resources Emergency (CARE) Act is federal legislation that addresses the unmet health needs of persons living with HIV Disease (PLWH) by funding case management, health care and support services. First enacted by Congress in 1990, it was amended and reauthorized in 1996 and again in 2000. The Ryan White CARE Act has provided discretionary funding for eligible metropolitan areas, (Title I), states (Title II), and other community-based grantees (Titles III and IV) to offer health care and support services for individuals living with HIV Disease and who lack health insurance and/or financial resources for their own care. Though Ryan White CARE Act funded programs are critical to people with no source of health care insurance, other state and federal health insurance entitlement programs (Medicaid, Medicare, VA) provide the majority of funding for HIV care and treatment. Thus, Ryan White-funded programs fill gaps in care and are the "payer of last resort" for services not covered by these other resources.

In Missouri, there are at least 10 distinct entities directly receiving Ryan White (RW) funds through the various Titles for the provision of services. Included are the two Title I cities of St. Louis and Kansas City, the single Title II recipient, which is the Missouri Department of Health and Senior Services, four community-based organizations that receive Title III funds, two Title IV funded agencies, and the University of Missouri-Kansas City Dental School that receives funding under Part F. Though Missouri has developed an effective partnership across all Titles in which to create a seamless network of access to services for PLWH, there are some differences in the services available from each Ryan White-funded entity and other non-Ryan White sources. Also, there is no single Missouri entity which has developed and implemented a statewide system to collect, report and disseminate information regarding service utilization patterns for all reported PLWH from all payer sources including Ryan White and others.

Missouri used several data sources to answer the two questions for the 2003 epidemiological profile for calendar year 2003. These sources of data include:

- Missouri's HIV AIDS Reporting System (HARS)
  - Reported HIV Disease
  - Reported CD4 values
  - Reported Viral Load (VL)
- Statewide Case Management Database which includes all grantees
- CARE Act Data Report System (CADR) 2002 data
- AIDS Drug Assistance Program (ADAP) database
- Title I and II Women, Infant, Children, and Youth (WICY) Program Year 2002 (Title II) and Fiscal Year 2003 (Title I's) data reports

Question 1: What Are The Patterns of Service Utilization of HIV-Infected Persons in Your Area?

Case Management Service Utilization:

Missouri is a state that requires named reporting of HIV Disease. Also, as of June 2000 Missouri's communicable disease reporting rule requires the reporting of all CD4s and viral loads (VL).

In Missouri, the provision of RW funded case management services (regardless of RW title) is available statewide and PLWH who have the need to access health care, treatments, and supportive services through RW funds are required to be enrolled in HIV case management.

In Missouri, databases must be matched together to identify persons in the HARS database. One common identifier in Missouri is the department client number (DCN). Even using these criteria to match databases during calendar year 2003, there were approximately 833 clients in the case management database for 2003 that could not be matched to the HARS database.

Table 1. The Impact of HIV Case Management on Access to Care by Region and Race/Ethnicity as Indicated by Diagnostic Tests* Reported During the 12-Month Period Ending December 31, 2003**

Region	Total HIV Population		Enrolled in Case Management		Not Enrolled in Case Management	
	Had Report of Viral Load or CD4	No Report of Viral Load or CD4	Had Report of Viral Load or CD4	No Report of Viral Load or CD4	Had Report of Viral Load or CD4	No Report of Viral Load or CD4
St. Louis Region						
White	42.0%	58.0%	69.8%	30.2%	29.6%	70.4%
Black	44.6%	55.4%	77.2%	22.8%	24.0%	76.0%
Hispanic	42.4%	57.6%	81.0%	19.0%	21.1%	78.9%
Other/Unk.	24.4%	75.6%	36.4%	63.6%	20.0%	80.0%
Total	**43.2%**	**56.8%**	**73.9%**	**26.1%**	**26.7%**	**73.3%**
Kansas City Region						
White	36.0%	64.0%	65.8%	34.2%	22.9%	77.1%
Black	40.3%	59.7%	66.8%	33.2%	22.7%	77.3%
Hispanic	42.2%	57.8%	80.4%	19.6%	20.7%	79.3%
Other/Unk.	34.2%	65.8%	78.6%	21.4%	8.3%	91.7%
Total	**37.7%**	**62.3%**	**67.0%**	**33.0%**	**22.5%**	**77.5%**
Northwest Region						
White	30.4%	69.6%	44.4%	55.6%	23.7%	76.3%
Black	12.5%	87.5%	0.0%	100.0%	25.0%	75.0%
Hispanic	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Other/Unk.	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%
Total	**27.9%**	**72.1%**	**36.4%**	**63.6%**	**23.5%**	**76.5%**
Central Region						
White	50.3%	49.7%	73.4%	26.6%	34.1%	65.9%
Black	48.1%	51.9%	72.7%	27.3%	31.3%	68.8%
Hispanic	25.0%	75.0%	100.0%	0.0%	0.0%	100.0%
Other/Unk.	60.0%	40.0%	100.0%	0.0%	50.0%	50.0%
Total	**49.3%**	**50.7%**	**73.7%**	**26.3%**	**32.7%**	**67.3%**
Southeast Region						
White	38.2%	61.8%	64.2%	35.8%	18.1%	81.9%
Black	46.3%	53.7%	76.7%	23.3%	21.6%	78.4%
Hispanic	50.0%	50.0%	0.0%	0.0%	50.0%	50.0%
Other/Unk.	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%
Total	**40.2%**	**59.8%**	**67.6%**	**32.4%**	**19.3%**	**80.7%**
Southwest Region						
White	51.9%	48.1%	82.0%	18.0%	26.8%	73.2%
Black	40.3%	59.7%	84.0%	16.0%	14.3%	85.7%
Hispanic	31.3%	68.8%	50.0%	50.0%	12.5%	87.5%
Other/Unk.	40.0%	60.0%	100.0%	0.0%	33.3%	66.7%
Total	**50.3%**	**49.7%**	**81.5%**	**18.5%**	**25.4%**	**74.6%**
Statewide (MO)						
White	41.4%	58.6%	70.2%	29.8%	26.7%	73.3%
Black	43.3%	56.7%	73.7%	26.3%	23.7%	76.3%
Hispanic	40.8%	59.2%	77.9%	22.1%	19.9%	80.1%
Other/Unk.	31.3%	68.8%	63.0%	37.0%	18.8%	81.2%
Total	**42.0%**	**58.0%**	**71.8%**	**28.2%**	**25.3%**	**74.7%**

* Diagnostic Test is defined as CD4+ T-Lymphocyte or Viral Load Testing.

** CD4 counts as reported to the Office of Surveillance of the MO Dept. of Health & Senior Services.

Medical Care Service Utilization Patterns Using Reported CD4/VL:

Because of the variety of service access points and payer sources, the measurement of service utilization patterns of all reported PLWH residing in Missouri is problematic. Because of this, Missouri grantees have agreed to define the primary measurement of access to medical care as a reported CD4/VL within a 12-month period. This information becomes part of the HIV/AIDS Reporting System (HARS) database. There are some limitations to using these data. These limitations include but are not limited to:

- HARS data based on Missouri as state of diagnosis
- Case Management database based on any PLWH residing in Missouri enrolled in case management regardless of state of diagnosis

Within these limitations, Missouri is able to match PLWH enrolled in case management with the HARS database for reported CD4/VL in a calendar year (Table 2).

Table 2. Currently Living HIV-Diagnosed Persons, Enrolled in HIV Case Management as of December 31, 2003 by Region*, Race/Ethnicity, and Diagnostic Tests** Reported During the 12 Month Period Ending December 31, 2003***

Consortium Region/ Race/Ethnicity	Had Test		No Report ****		Total *****	
St. Louis Region						
White	446	69.8%	193	30.2%	639	100.0%
Black	678	77.2%	200	22.8%	878	100.0%
Hispanic	17	81.0%	4	19.0%	21	100.0%
Other/Unknown	4	36.4%	7	63.6%	11	100.0%
St. Louis Region Total	**1,145**	**73.9%**	**404**	**26.1%**	**1,549**	**100.0%**
Kansas City Region						
White	340	65.8%	177	34.2%	517	100.0%
Black	265	66.8%	132	33.2%	397	100.0%
Hispanic	37	80.4%	9	19.6%	46	100.0%
Other/Unknown	11	78.6%	3	21.4%	14	100.0%
Kansas City Region Total	**653**	**67.0%**	**321**	**33.0%**	**974**	**100.0%**
Northwest Region						
White	16	44.4%	20	55.6%	36	100.0%
Black	0	0.0%	8	100.0%	8	100.0%
Hispanic	0	0.0%	0	0.0%	0	0.0%
Other/Unknown	0	0.0%	0	0.0%	0	0.0%
Northwest Region Total	**16**	**36.4%**	**28**	**63.6%**	**44**	**100.0%**
Central Region						
White	94	73.4%	34	26.6%	128	100.0%
Black	40	72.7%	15	27.3%	55	100.0%
Hispanic	2	100.0%	0	0.0%	2	100.0%
Other/Unknown	1	100.0%	0	0.0%	1	100.0%
Central Region Total	**137**	**73.7%**	**49**	**26.3%**	**186**	**100.0%**
Southeast Region						
White	52	64.2%	29	35.8%	81	100.0%
Black	23	76.7%	7	23.3%	30	100.0%
Hispanic	0	0.0%	0	0.0%	0	0.0%
Other/Unknown	0	0.0%	0	0.0%	0	0.0%
Southeast Region Total	**75**	**67.6%**	**36**	**32.4%**	**111**	**100.0%**
Southwest Region						
White	242	82.0%	53	18.0%	295	100.0%
Black	21	84.0%	4	16.0%	25	100.0%
Hispanic	4	50.0%	4	50.0%	8	100.0%
Other/Unknown	1	100.0%	0	0.0%	1	100.0%
Southwest Region Total	**268**	**81.5%**	**61**	**18.5%**	**329**	**100.0%**
Missouri						
White	**1,190**	**70.2%**	**506**	**29.8%**	**1,696**	**100.0%**
Black	**1,027**	**73.7%**	**366**	**26.3%**	**1,393**	**100.0%**
Hispanic	**60**	**77.9%**	**17**	**22.1%**	**77**	**100.0%**
Other/Unknown	**17**	**63.0%**	**10**	**37.0%**	**27**	**100.0%**
Missouri Total	**2,294**	**71.8%**	**899**	**28.2%**	**3,193**	**100.0%**

*The Ryan White Title II Consortium Region in which the person was initially diagnosed with HIV infection (if an HIV case) or AIDS (if an AIDS case). This is not necessarily where he/she is currently residing.

** Defined as CD4+ T-Lymphocyte or Viral Load Testing

***Of living HIV-infected persons who have been reported to the MDHSS and who also have at least one reported CD4+ test result.

**** No Report is defined as not having a diagnostic test reported to MDHSS during the indicated time period.

*****Does not include persons reported from Missouri State Correctional Facilities, persons listed as residents of other states, or persons not reported as Missouri residents at time of diagnosis.

NOTE: Row Percentages are shown.

During 2002, 44% (3,903) of reported PLWH were enrolled in the statewide HIV case management program. During 2003, 4,026 PLWH out of 8,871 total PLWH were enrolled in case management (45%).

Table 3. Percent of Missouri Case Managed Clients Compared to Reported HARS PLWH By Calendar Year 2002 and 2003

Percentage of Clients in HIV Case Management Compared to Reported HARS PLWH By Calendar Year 2002 and 2003				
Race/Ethnicity	2002*		2003**	
	CM Clients	PLWH	CM Clients	PLWH
White	54.1%	56.1%	45.4%	56.6%
Black	42.1%	40.6%	42.2%	40.0%
Hispanic	2.8%	2.4%	3.1%	2.4%
Other/Unknown	0.9%	0.9%	0.4%	0.1%
Am.Indian/Alaskan			0.1%	
Asian/PI			0.4%	

*In 2002, case management enrollment does not include clients in corrections, but includes them in the number of living.

**In 2003, case management enrollment does include clients in corrections, but the number of living does not include 833 individuals who were either in corrections or could not be matched with HARS data.

Service Utilization Patterns Across Grantees Utilizing CADR Data:

The results of the 2002 CARE Act Data Reports (CADR), compiled by HRSA, provide some insight into service utilization patterns for core health care services and support services in Missouri (Table 4 and 5).

Table 4. Missouri CADR 2002 Core Health Care Services

Core Health Care Services	Number of Duplicated Clients Served	Total Visits
Ambulatory/Outpatient Medical Care	3,021	11,495
Mental Health Care	647	2,053
Oral Health Care	567	1,026
Substance Abuse Services, outpatient	62	518
Home health: paraprofessional care	53	53
Home health: specialized care	3	--
Case management services		
HIV-positive clients	4,281	30,470
HIV-negative clients	215	289

Source: HRSA CADR Report, CY 2002.

Table 5. Missouri CADR 2002 **Support Services***

Support Services	Total Duplicated HIV-positive Clients	Total Duplicated HIV-negative Clients
Buddy/companion services	95	--
Child care services	6	197
Child welfare services	--	--
Client advocacy	97	--
Day/respite care for adults	--	--
Developmental assessment	26	--
Early intervention services/Titles I & II	8	--
Emergency financial assistance	883	219
Food bank/home-delivered meals	1,649	--
Health education/risk reduction	676	3
Housing services	744	128
Legal services	218	--
Nutritional counseling	534	16
Outreach services	1,100	--
Permanency planning	8	--
Psychosocial support services	619	205
Referral: health care/support services	1,465	216
Referral: clinical research	347	3
Hospice care: residential/in-home	5	--
Transportation services	1,508	33
Treatment adherence counseling	1,516	3
Other services	46	107

*Source: HRSA CADR report, CY 2002

ADAP Medication Utilization

The Missouri Statewide AIDS Drug Assistance Program (ADAP) uses discretionary federal and state funding to provide life-sustaining medications to low income Missourians living with HIV Disease who do not have access through private insurance, Medicaid, or other sources to these medications. Review of the unduplicated clients that ADAP paid at least one prescription on their behalf indicates that ADAP is proportionally accessible to minorities across the state as compared to PLWH and case management enrollment (Table 6).

Table 6. Missouri Statewide ADAP Unduplicated Client Utilization For January 1, 2003 through December 1, 2003

Race	#	%
White	1,174	55.6%
AA	909	43.1%
A/PI	5	0.2%
I/AN	6	0.3%
Unk	16	0.8%
Totals	2,110	100%
Minority Only	936	44.4%

Service utilization patterns as identified by the annual Women, Infants, Children, and Youth (WICY) reports submitted by Titles I and II:

An evaluation of Table 7 indicates that even without the state Medicaid match Missouri provides required expenditure allocations for care service dollars for women, infants, and youth with HIV. With the state Medicaid match, expenditures for these populations are several times over the required expenditure allocations.

Table 7. Missouri WICY Profile for RW Titles I and II Service Utilization Patterns by Service and Percent of Total Budget

Region	Women	Infants	Children	Youth	Total
DHSS – Title II -- PY 2002					
Case Management	18.5%	0.1%	1.2%	4.1%	24.0%
Medications	13.8%	0.0%	0.2%	3.0%	16.9%
Total with State Medicaid Match	67.5%	0.1%	0.5%	3.6%	71.7%
KC – Title I -- FY 2003					
Case Management	29.1%	0.0%	68.9%	25.8%	24.0%
Outpatient Care	20.9%	0.0%	4.3%	18.2%	10.0%
Medications	14.5%	0.0%	7.4%	27.4%	26.0%
St. Louis – Title I -- FY 2003					
Case Management	25.5%	0.0%	0.0%	5.6%	31.1%
EIS	26.9%	0.0%	0.1%	41.5%	68.5%
Oral Health	7.4%	0.0%	0.0%	2.3%	9.6%
Psychosocial	46.9%	0.0%	0.0%	38.8%	85.8%
Mental Health	13.4%	0.0%	0.0%	1.7%	15.1%
Medication	25.9%	0.0%	0.9%	5.3%	32.1%
Outpatient Care	15.7%	0.0%	0.3%	11.0%	27.0%

Question 2: What are the number and characteristics of the individuals who know they are HIV positive but who are not in care?

Number of Individuals

This number would be all clients in the HARS database who do not receive medical care from any other source. As previously defined by RW grantees, this would be all PLWH who do not have a reported CD4/VL in a 12-month calendar year period. We can also identify clients not in case management by comparing the HARS database to our statewide case management database.

The unmet-need formula for Missouri for calendar year 2003 is as follows:

- Number of total PLWH CY 2003 = 9,413
- Number of PLWH obtaining a CD4/VL in CY 2003 = 3,954
- Unmet Need = 5,459 PLWH

Using our definition of access to medical care we can answer the question "what are the number and characteristics of persons who know they are HIV-positive and are not receiving HIV primary medical care?" We have compared reported CD4/VL for clients enrolled in case management to reported CD4/VL for all PLWH in calendar year 2002 and 2003 (Table 8).

Table 8. Percent of Missouri Case Managed Clients Not Receiving Medical Care* Compared to Reported HARS PLWH By Calendar Year 2002 and 2003

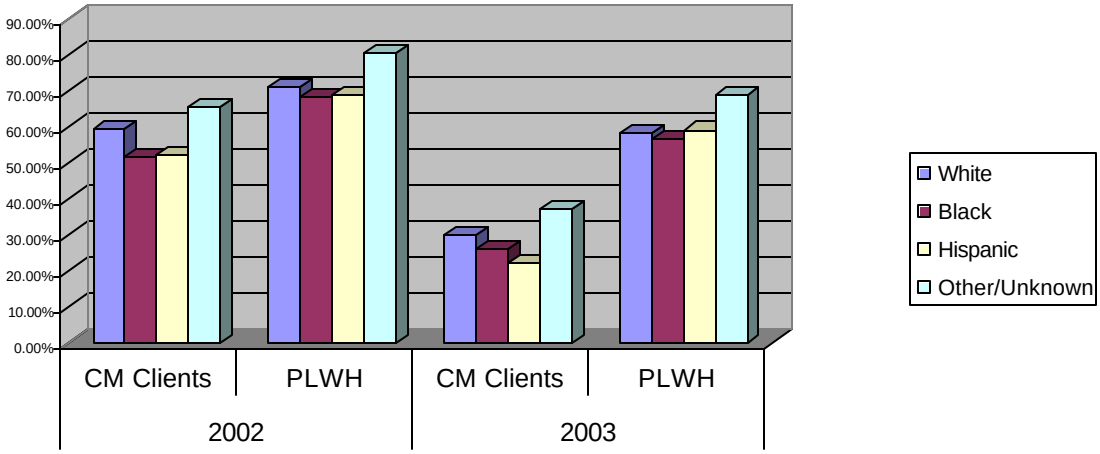
	2002		2003	
Race/Ethnicity	CM Clients	PLWH	CM Clients	PLWH
White	59.6%	71.3%	29.8%	58.6%
Black	51.8%	68.5%	26.3%	56.7%
Hispanic	52.3%	69.1%	22.1%	59.2%
Other/Unknown	65.7%	80.4%	37.0%	68.7%

*as defined by reported CD4 in CY 2002 and CD4/VL CY 2003

There is a significant improvement in the percentages of both categories of PLWH and case-managed clients without a reported CD4/VL in 2003 compared to case managed clients and PLWH in 2002. In both years, clients receiving case management services have fewer numbers not receiving a reported CD4/VL (Figure 1). The major factor for this difference is probably the reporting of viral loads in addition to CD4s during calendar year 2003. In 2002 only reported CD4 counts were used for the comparison. Some additional factors that might have influenced these figures include:

- Increased emphasis on documentation of outcomes for clients enrolled in case management
- Inability to match approximately 833 clients in the case management data system to the HARS data system
- Missing case management clients from Kansas City EMA in the case management database

Figure 1. Percent of Reported HARS PLWH Not Receiving Medical Care Compared to Case Management Clients Not Receiving Medical Care CY 2002 - 2003



Assumptions about the Characteristics of PLWH Not Receiving Care

By looking at our HARS data, our case management database, the numbers of PLWH obtaining CD4/VL, and service utilization patterns, we can make some assumptions about PLWH not receiving care that may include:

- Clients in case management in 2003 had a reported CD4/VL during CY 2003 of 71.8% compared to PLWH not enrolled in case management who had a reported CD4 of 25.3%.
- Out of all PLWH in Missouri, 42.7% are enrolled in case management.
- Table 1 (found at the beginning of this section) provides demographic information on persons who are not in care as defined by recent CD4/Viral load. However, it does not denote variations in access to care by regions.
- Overall, 58% of all PLWH did not have a recent CD4/Viral load and race did not appear to be a factor.
- Women with families can often access health care services through Medicaid regardless of a disability determination.
- There was one (1) HIV-positive infant born in Missouri during calendar year 2003.
- Only HIV-positive males with a disability determination may qualify for Medicaid services and, therefore, may have difficulty accessing health care.

In the Future

A study is underway to identify opportunities to improve HIV primary care access and utilization by persons who are HIV-positive but not receiving primary care for the management of their HIV. This study is called the HIV-Aware/Not in Care Project. The AIDS Foundation of St. Louis and the Policy Resource Group, LLC are conducting this Project through a grant funded by the Missouri Foundation for Health. This study is a two-staged process involving an analysis of health care utilization data from disparate health systems over a period of ten years (1992-2002) for persons in the St. Louis, Missouri, region; and key informant interviews among two populations to ground the observations. For more information, go to: www.policyresourcegroup.com/HIVaware.htm. More information should be available for the 2004 Epidemiologic Profile.

Emerging Patterns in Newly Diagnosed PLWH 2003

The following tables (9-15) show emerging patterns for people in Missouri newly diagnosed with HIV Disease in 2003 who are not receiving care as defined by a CD4 in a 12-month period, by State and HIV Region.

- Approximately half of all newly diagnosed individuals do not access medical care as evidenced by the lack of a CD4 count.
- Although less than half of all newly diagnosed individuals enrolled in case management, of those that did only a third did not access medical care as evidenced by a CD4 count.
- There are no substantial gender differences in access to medical care for newly diagnosed individuals as evidenced by a CD4 count.
- It appears that newly diagnosed Blacks are not accessing medical care to the same extent as newly diagnosed Whites.
- Fifty-seven percent of newly diagnosed individuals in the age range of 13 – 24 years are not accessing medical care as evidenced by a CD4.
- Generally speaking, it appears that the urban areas have a lower proportion of newly diagnosed individuals accessing medical care as evidenced by a CD4 count as compared to the outstate regions (except for Southeast).

Table 9. HIV+ Diagnosed* by Demographics, Missouri 2003

	All New HIV+ Diagnosed in 2003		All New HIV+ Diagnosed in 2003 who had a CD4		All New HIV+ Diagnosed in 2003 with an Initial Diagnosis of AIDS		New HIV+ Diagnosed in 2003 (Case Management)		New HIV+ Diagnosed in 2003 who had a CD4 (Case Management)		New HIV+ Diagnosed in 2003* with an Initial Diagnosis of AIDS (Case Management)	
	#	%	#	%	#	%	#	%	#	%	#	%
Total	**432**	**100.0%**	**227**	**52.5%**	**68**	**15.7%**	**184**	**42.6%**	**115**	**62.5%**	**32**	**17.4%**
Gender												
Men	343	79.4%	183	53.4%	57	16.6%	142	41.4%	91	64.1%	28	19.7%
Women	89	20.6%	44	49.4%	11	12.4%	42	47.2%	24	57.1%	4	9.5%
Race/Ethnicity												
White	189	43.8%	114	60.3%	36	19.0%	82	43.4%	57	69.5%	17	20.7%
Black	229	53.0%	105	45.9%	27	11.8%	95	41.5%	54	56.8%	13	13.7%
Hispanic	4	0.9%	3	75.0%	2	50.0%	2	50.0%	1	50.0%	1	50.0%
Am Indian/Alaskan Native	1	0.2%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Asian	2	0.5%	2	100.0%	1	50.0%	1	50.0%	1	100.0%	0	0.0%
Other/Unknown	7	1.6%	3	42.9%	2	28.6%	4	57.1%	2	50.0%	1	25.0%
Age Group												
<2	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
2 - 12	1	0.2%	1	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
13 - 24	63	14.6%	27	42.9%	1	1.6%	28	44.4%	15	53.6%	1	3.6%
25 - 44	289	66.9%	153	52.9%	43	14.9%	132	45.7%	87	65.9%	24	18.2%
45 - 64	79	18.3%	46	58.2%	24	30.4%	24	30.4%	13	54.2%	7	29.2%
65 and over	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Unknown	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Region												
Kansas City	108	25.0%	51	47.2%	16	14.8%	40	37.0%	25	62.5%	8	20.0%
Northwest	11	2.5%	10	90.9%	0	0.0%	3	27.3%	2	66.7%	0	0.0%
North Central	32	7.4%	26	81.3%	5	15.6%	18	56.3%	15	83.3%	2	11.1%
St. Louis	223	51.6%	103	46.2%	33	14.8%	94	42.2%	54	57.4%	17	18.1%
Southwest	42	9.7%	30	71.4%	11	26.2%	21	50.0%	16	76.2%	5	23.8%
Southeast	16	3.7%	7	43.8%	3	18.8%	8	50.0%	3	37.5%	0	0.0%

* Determined by the Date of Diagnosis, NOT the Date of Report. Not adjusted for reporting delays.

Table 10. HIV+ Diagnosed* by Demographics for Kansas City HIV Region, 2003

	All New HIV+ Diagnosed in 2003		All New HIV+ Diagnosed in 2003 who had a CD4		All New HIV+ Diagnosed in 2003 with an Initial Diagnosis of AIDS		New HIV+ Diagnosed in 2003 (Case Management)		New HIV+ Diagnosed in 2003 who had a CD4 (Case Management)		New HIV+ Diagnosed in 2003* with an Initial Diagnosis of AIDS (Case Management)	
	#	%	#	%	#	%	#	%	#	%	#	%
Total	**108**	**100.0%**	**51**	**47.2%**	**16**	**14.8%**	**40**	**37.0%**	**25**	**62.5%**	**8**	**20.0%**
Gender												
Men	87	80.6%	41	47.1%	14	16.1%	31	35.6%	21	67.7%	8	25.8%
Women	21	19.4%	10	47.6%	2	9.5%	9	42.9%	4	44.4%	0	0.0%
Race/Ethnicity												
White	47	43.5%	21	44.7%	8	17.0%	14	29.8%	10	71.4%	4	28.6%
Black	57	52.8%	26	45.6%	5	8.8%	23	40.4%	12	52.2%	2	8.7%
Hispanic	2	1.9%	2	100.0%	2	100.0%	1	50.0%	1	100.0%	1	100.0%
Am Indian/Alaskan Native	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Asian	1	0.9%	1	100.0%	0	0.0%	1	100.0%	1	100.0%	0	0.0%
Other/Unknown	1	0.9%	1	100.0%	1	100.0%	1	100.0%	1	100.0%	1	100.0%
Age Group												
<2	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
2 - 12	1	0.9%	1	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
13 - 24	16	14.8%	9	56.3%	0	0.0%	8	50.0%	5	62.5%	0	0.0%
25 - 44	72	66.7%	34	47.2%	11	15.3%	28	38.9%	18	64.3%	8	28.6%
45 - 64	19	17.6%	7	36.8%	5	26.3%	4	21.1%	2	50.0%	0	0.0%
65 and over	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Unknown	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%

* Determined by the Date of Diagnosis, NOT the Date of Report. Not adjusted for reporting delays.

Table 11. HIV+ Diagnosed* by Demographics for Northwest HIV Region, 2003

	All New HIV+ Diagnosed in 2003		All New HIV+ Diagnosed in 2003 who had a CD4		All New HIV+ Diagnosed in 2003 with an Initial Diagnosis of AIDS		New HIV+ Diagnosed in 2003 (Case Management)		New HIV+ Diagnosed in 2003 who had a CD4 (Case Management)		New HIV+ Diagnosed in 2003* with an Initial Diagnosis of AIDS (Case Management)	
	#	%	#	%	#	%	#	%	#	%	#	%
Total	**11**	**100.0%**	**10**	**90.9%**	**0**	**0.0%**	**3**	**27.3%**	**2**	**66.7%**	**0**	**0.0%**
Gender												
Men	11	100.0%	10	90.9%	0	0.0%	3	27.3%	2	66.7%	0	0.0%
Women	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Race/Ethnicity												
White	3	27.3%	2	66.7%	0	0.0%	2	66.7%	1	50.0%	0	0.0%
Black	8	72.7%	8	100.0%	0	0.0%	1	12.5%	1	100.0%	0	0.0%
Hispanic	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Am Indian/Alaskan Native	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Asian	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Other/Unknown	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Age Group												
<2	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
2 - 12	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
13 - 24	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
25 - 44	10	90.9%	10	100.0%	0	0.0%	2	20.0%	2	100.0%	0	0.0%
45 - 64	1	9.1%	0	0.0%	0	0.0%	1	100.0%	0	0.0%	0	0.0%
65 and over	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Unknown	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%

* Determined by the Date of Diagnosis, NOT the Date of Report. Not adjusted for reporting delays.

Table 12. HIV+ Diagnosed* by Demographics for North Central HIV Region, 2003

	All New HIV+ Diagnosed in 2003		All New HIV+ Diagnosed in 2003 who had a CD4		All New HIV+ Diagnosed in 2003 with an Initial Diagnosis of AIDS		New HIV+ Diagnosed in 2003 (Case Management)		New HIV+ Diagnosed in 2003 who had a CD4 (Case Management)		New HIV+ Diagnosed in 2003* with an Initial Diagnosis of AIDS (Case Management)	
	#	%	#	%	#	%	#	%	#	%	#	%
Total	**32**	**100.0%**	**26**	**81.3%**	**5**	**15.6%**	**18**	**56.3%**	**15**	**83.3%**	**2**	**11.1%**
Gender												
Men	22	68.8%	17	77.3%	2	9.1%	11	50.0%	8	72.7%	0	0.0%
Women	10	31.3%	9	90.0%	3	30.0%	7	70.0%	7	100.0%	2	28.6%
Race/Ethnicity												
White	18	56.3%	17	94.4%	3	16.7%	11	61.1%	10	90.9%	0	0.0%
Black	14	43.8%	9	64.3%	2	14.3%	7	50.0%	5	71.4%	2	28.6%
Hispanic	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Am Indian/Alaskan Native	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Asian	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Other/Unknown	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Age Group												
<2	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
2 - 12	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
13 - 24	3	9.4%	2	66.7%	0	0.0%	2	66.7%	1	50.0%	0	0.0%
25 - 44	24	75.0%	19	79.2%	4	16.7%	15	62.5%	13	86.7%	1	6.7%
45 - 64	5	15.6%	5	100.0%	1	20.0%	1	20.0%	1	100.0%	1	100.0%
65 and over	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Unknown	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%

* Determined by the Date of Diagnosis, NOT the Date of Report. Not adjusted for reporting delays.

Table 13. HIV+ Diagnosed* by Demographics for Southeast HIV Region, 2003

	All New HIV+ Diagnosed in 2003		All New HIV+ Diagnosed in 2003 who had a CD4		All New HIV+ Diagnosed in 2003 with an Initial Diagnosis of AIDS		New HIV+ Diagnosed in 2003 (Case Management)		New HIV+ Diagnosed in 2003 who had a CD4 (Case Management)		New HIV+ Diagnosed in 2003* with an Initial Diagnosis of AIDS (Case Management)	
	#	%	#	%	#	%	#	%	#	%	#	%
Total	**16**	**100.0%**	**7**	**43.8%**	**3**	**18.8%**	**8**	**50.0%**	**3**	**37.5%**	**0**	**0.0%**
Gender												
Men	8	50.0%	2	25.0%	1	12.5%	3	37.5%	0	0.0%	0	0.0%
Women	8	50.0%	5	62.5%	2	25.0%	5	62.5%	3	60.0%	0	0.0%
Race/Ethnicity												
White	7	43.8%	2	28.6%	2	28.6%	4	57.1%	1	25.0%	0	0.0%
Black	9	56.3%	5	55.6%	1	11.1%	4	44.4%	2	50.0%	0	0.0%
Hispanic	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Am Indian/Alaskan Native	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Asian	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Other/Unknown	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Age Group												
<2	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
2 - 12	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
13 - 24	5	31.3%	2	40.0%	0	0.0%	2	40.0%	1	50.0%	0	0.0%
25 - 44	7	43.8%	3	42.9%	1	14.3%	5	71.4%	2	40.0%	0	0.0%
45 - 64	4	25.0%	2	50.0%	2	50.0%	1	25.0%	0	0.0%	0	0.0%
65 and over	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Unknown	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%

* Determined by the Date of Diagnosis, NOT the Date of Report. Not adjusted for reporting delays.

Table 14. HIV+ Diagnosed* by Demographics for St. Louis HIV Region, 2003

	All New HIV+ Diagnosed in 2003		All New HIV+ Diagnosed in 2003 who had a CD4		All New HIV+ Diagnosed in 2003 with an Initial Diagnosis of AIDS		New HIV+ Diagnosed in 2003 (Case Management)		New HIV+ Diagnosed in 2003 who had a CD4 (Case Management)		New HIV+ Diagnosed in 2003* with an Initial Diagnosis of AIDS (Case Management)	
	#	%	#	%	#	%	#	%	#	%	#	%
Total	**223**	**100.0%**	**103**	**46.2%**	**33**	**14.8%**	**94**	**42.2%**	**54**	**57.4%**	**17**	**18.1%**
Gender												
Men	175	78.5%	85	48.6%	29	16.6%	74	42.3%	45	60.8%	15	20.3%
Women	48	21.5%	18	37.5%	4	8.3%	20	41.7%	9	45.0%	2	10.0%
Race/Ethnicity												
White	78	35.0%	47	60.3%	13	16.7%	32	41.0%	21	65.6%	8	25.0%
Black	136	61.0%	53	39.0%	19	14.0%	58	42.6%	32	55.2%	9	15.5%
Hispanic	2	0.9%	1	50.0%	0	0.0%	1	50.0%	0	0.0%	0	0.0%
Am Indian/Alaskan Native	1	0.4%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Asian	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Other/Unknown	6	2.7%	2	33.3%	1	16.7%	3	50.0%	1	33.3%	0	0.0%
Age Group												
<2	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
2 - 12	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
13 - 24	36	16.1%	13	36.1%	1	2.8%	13	36.1%	7	53.8%	1	7.7%
25 - 44	144	64.6%	64	44.4%	20	13.9%	67	46.5%	40	59.7%	12	17.9%
45 - 64	43	19.3%	26	60.5%	12	27.9%	14	32.6%	7	50.0%	4	28.6%
65 and over	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Unknown	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%

* Determined by the Date of Diagnosis, NOT the Date of Report. Not adjusted for reporting delays.

Table 15. HIV+ Diagnosed* by Demographics for Southwest HIV Region, 2003

	All New HIV+ Diagnosed in 2003		All New HIV+ Diagnosed in 2003 who had a CD4		All New HIV+ Diagnosed in 2003 with an Initial Diagnosis of AIDS		New HIV+ Diagnosed in 2003 (Case Management)		New HIV+ Diagnosed in 2003 who had a CD4 (Case Management)		New HIV+ Diagnosed in 2003* with an Initial Diagnosis of AIDS (Case Management)	
	#	%	#	%	#	%	#	%	#	%	#	%
Total	**42**	**100.0%**	**30**	**71.4%**	**11**	**26.2%**	**21**	**50.0%**	**16**	**76.2%**	**5**	**23.8%**
Gender												
Men	40	95.2%	28	70.0%	11	27.5%	20	50.0%	15	75.0%	5	25.0%
Women	2	4.8%	2	100.0%	0	0.0%	1	50.0%	1	100.0%	0	0.0%
Race/Ethnicity												
White	36	85.7%	25	69.4%	10	27.8%	19	52.8%	14	73.7%	5	26.3%
Black	5	11.9%	4	80.0%	0	0.0%	2	40.0%	2	100.0%	0	0.0%
Hispanic	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Am Indian/Alaskan Native	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Asian	1	2.4%	1	100.0%	1	100.0%	0	0.0%	0	0.0%	0	0.0%
Other/Unknown	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Age Group												
<2	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
2 - 12	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
13 - 24	3	7.1%	1	33.3%	0	0.0%	3	100.0%	1	33.3%	0	0.0%
25 - 44	32	76.2%	23	71.9%	7	21.9%	15	46.9%	12	80.0%	3	20.0%
45 - 64	7	16.7%	6	85.7%	4	57.1%	3	42.9%	3	100.0%	2	66.7%
65 and over	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Unknown	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%

* Determined by the Date of Diagnosis, NOT the Date of Report. Not adjusted for reporting delays.

Table 16 presents an estimate of annual medical costs for treatment of persons living with HIV Disease in Missouri. This estimate is based on research published in the New England Journal of Medicine in 2001*. In the study, researchers estimated the average expenditure per patient per month on the basis of self-reported information about the care they received. We have applied these average costs to the residents of Missouri living with HIV Disease to estimate the financial impact of the disease based on different subgroups. The estimates are calculated on 9,413 individuals (except for the CD4 subgroup). Averaging the estimates of the four subgroups (gender, age group, mode of transmission, and race/ethnicity), the projected annual financial burden of HIV Disease in Missouri is $154,670,388.

Table 16. Estimated Annual Financial Burden of HIV Disease in Missouri by SubGroups

Sub Group	Monthly Cost Est.	Num of Patients	Total Cost per Year
CD4 >500*	$532	2727	$17,409,168
CD4 200-499*	$925	2742	$30,436,200
CD4 50-199*	$1,361	1440	$23,518,080
CD4 <50	$2,344	571	$16,061,088
Male	$1,357	7944	$129,360,096
Female	$1,498	1469	$26,406,744
18-34**	$1,380	5499	$91,063,440
35-49**	$1,376	3141	$51,864,192
50+**	$1,469	488	$8,602,464
MSM	$1,320	5631	$89,195,040
IDU	$1,564	746	$14,000,928
HETERO	$1,291	1431	$22,169,052
OTHER RISK***	$1,533	1605	$29,525,580
WHITE	$1,404	5182	$87,306,336
BLACK	$1,357	3910	$63,670,440
HISPANIC	$1,370	221	$3,633,240
OTHER RACE****	$1,570	100	$1,884,000

Source: NEJM, March 15, 2001, p.820; HARS

Indicates persons living with HIV at the end of 2003
*1933 persons have no reported most recent CD4 absolute count to be included in the table
**Age at initial diagnosis of HIV or AIDS
***Other Risk includes MSM/IDU and all other risk factors than those listed
****Race is as reported in HARS, Other race includes multi-racial persons and persons of unknown race

*Bozzette, SA, *et al.* Expenditures for the Care of HIV-Infected Patients in the Era of Highly Active Antiretroviral Therapy. New England Journal of Medicine, Vol. 344, No. 11, pgs. 817-823, March 15, 2001.

Internet Resources

HIV Disease Epidemiologic Reports

DHSS. **HIV/AIDS: Scientific Studies and Reports** (Includes links to current and past editions of the Missouri *HIV/STD Epidemiologic Profiles* [formerly the *KWIK Facts*], as well as to current and past editions of *HIV/STD Statistics*.)
http://www.dhss.mo.gov/GLRequest/ID/SSRHIVAIDS.html

CDC. **HIV/AIDS Basic Statistics**
http://www.cdc.gov/hiv/stats.htm

CDC. **HIV/AIDS Surveillance Report**
http://www.cdc.gov/hiv/stats/hasrlink.htm

HIV Disease Web Sites

DHSS: **HIV/AIDS**
http://www.dhss.mo.gov/GLRequest/ID/HIVAIDS.html

DHSS. **Section of Communicable Disease Prevention**
http://www.dhss.state.mo.us/ehcdp/std_hiv/

CDC **Division of HIV/AIDS Prevention Home Page**
http://www.cdc.gov/hiv/dhap.htm

CDC. **Center for AIDS Prevention Studies (CAPS)**
http://www.caps.ucsf.edu/AIDSlist.html

NIAID. **NIAID Publications on HIV/AIDS**
http://www.niaid.nih.gov/publications/aids.htm

National Library of Medicine. **HIV/AIDS Information**
http://sis.nlm.nih.gov/HIV/HIVMain.htmI

Helena Hatch Special Care Center for Women (St. Louis)
http://hhscc.wustl.edu/

Project A.R.K. - AIDS/HIV Resources for Kids (St. Louis)
http://peds.wustl.edu/div/id/spec/

Healthfinder® (A gateway consumer health and human services information web site from the U.S. Government.)
http://www.healthfinder.gov/default.htm

DHSS = Missouri Department of Health and Senior Services
CDC = Centers for Disease Control and Prevention
NIAID = National Institute of Allergy and Infectious Diseases
HRSA=Health Resources and Services Administration
USPHS = U.S. Public Health Service

HIV Disease Treatment/Prevention Information

HIV InSite Knowledge Base (A comprehensive, on-line textbook of HIV disease from the University of California San Francisco and San Francisco General Hospital.)
http://hivinsite.ucsf.edu/InSite.jsp?page=KB

Medical Management of HIV Infection by John G. Bartlett, M.D. and Joel E. Gallant, M.D., M.P.H. (A handbook of HIV disease management that serves as the standard of care for the Johns Hopkins AIDS Service and has been accepted as the standard of care for quality assurance by Maryland Medicaid.)
http://www.hopkins-aids.edu/publications/book/book_toc.html

HRSA. **A Guide to the Clinical Care of Women With HIV**
http://hab.hrsa.gov/womencare.htm

HRSA. **HIV/AIDS Services**
http://hab.hrsa.gov/

HIV Disease Clinical Trials and Patient Care Information

CDC. Taking Part in Research Studies: What Questions Should You Ask?
http://www.cdc.gov/hiv/pubs/brochure/unc3bro.htm

The Pediatric AIDS Clinical Trials Group
http://pactg.s-3.com/

Helena Hatch Special Care Center for Women (St. Louis)
http://hhscc.wustl.edu/

Project A.R.K. - AIDS/HIV Resources for Kids (St. Louis)
http://peds.wustl.edu/div/id/spec/

HIV Disease Educational Opportunities for Health Professionals

Midwest AIDS Education and Training Centers (MATEC)
http://ness2.uic.edu/htbin/ulist/az?dispatch=find&style=az&orgid=99258

AIDS Education Training Centers (AETC)
http://www.aids-etc.org/

CDC = Centers for Disease Control and Prevention
HRSA=Health Resources and Services Administration
USPHS = U.S. Public Health Service

STDs-Epidemiologic Reports

MDOH. **Sexually Transmitted Diseases: Scientific Studies and Reports** (Includes links to current and past editions of the Missouri *HIV/STD Epidemiologic Profiles* [formerly the KWIK Facts], as well as to current and past editions of *HIV/STD Statistics*.)
http://www.dhss.mo.gov/GLRequest/ID/SSRSTD.html

CDC. **STD Surveillance & Statistics**
http://www.cdc.gov/nchstp/dstd/Stats_Trends/Stats_and_Trends.htm

STDs-Web Sites

DHSS. **Disease Directory: Chlamydia, Gonorrhea, Syphilis, Syphilis-Congenital**
http://www.dhss.mo.gov/Diseases/DDwelcome.htm

DHSS. **Section of Communicable Disease Prevention**
http://www.dhss.state.mo.us/ehcdp/std_hiv/

CDC. **Sexually Transmitted Diseases: Facts & Information**
http://www.cdc.gov/nchstp/dstd/disease_info.htm

CDC. **CDC Division of STD Prevention Home Page**
http://www.cdc.gov/nchstp/dstd/dstdp.html

CDC. **National Prevention Information Network (NPIN) - STD Resources**
http://www.cdcnpin.org/scripts/index.asp

NIAID. **NIAID Publications on STDs**
http://www.niaid.nih.gov/publications/stds.htm

Healthfinder® (A gateway consumer health and human services information web site from the U.S. Government.)
http://www.healthfinder.gov/default.htm

STDs-Treatment/Prevention Information

Sexually Transmitted Diseases Treatment Guidelines 2002
http://www.cdc.gov/std/treatment/default.htm

DHSS. **STD Manual**
http://www.dhss.state.mo.us/ehcdp/std_hiv/std_manuals.htm

STDs-Educational Opportunities for Health Professionals

St. Louis STD/HIV Prevention and Training Center
http://std.wustl.edu/

National STD/HIV Prevention and Training Center Network
http://depts.washington.edu/nnptc/

DHSS = Missouri Department of Health and Senior Services
CDC = Centers for Disease Control and Prevention
NIAID = National Institute of Allergy and Infectious Diseases

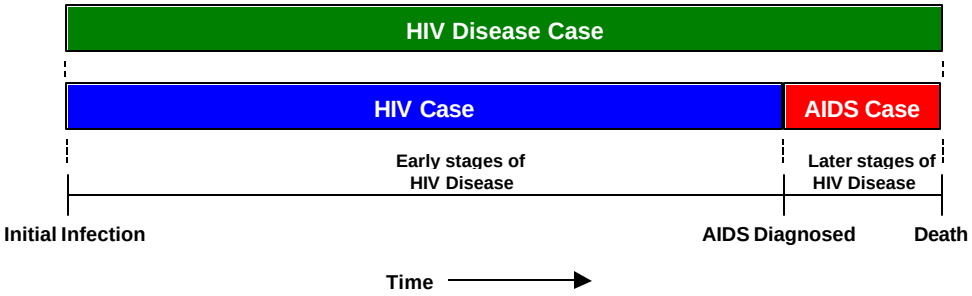
HIV/STD Statistics

Missouri Department of Health and Senior Services
Division of Environmental Health and CD Prevention/Office of Surveillance

HIV/STD Statistics

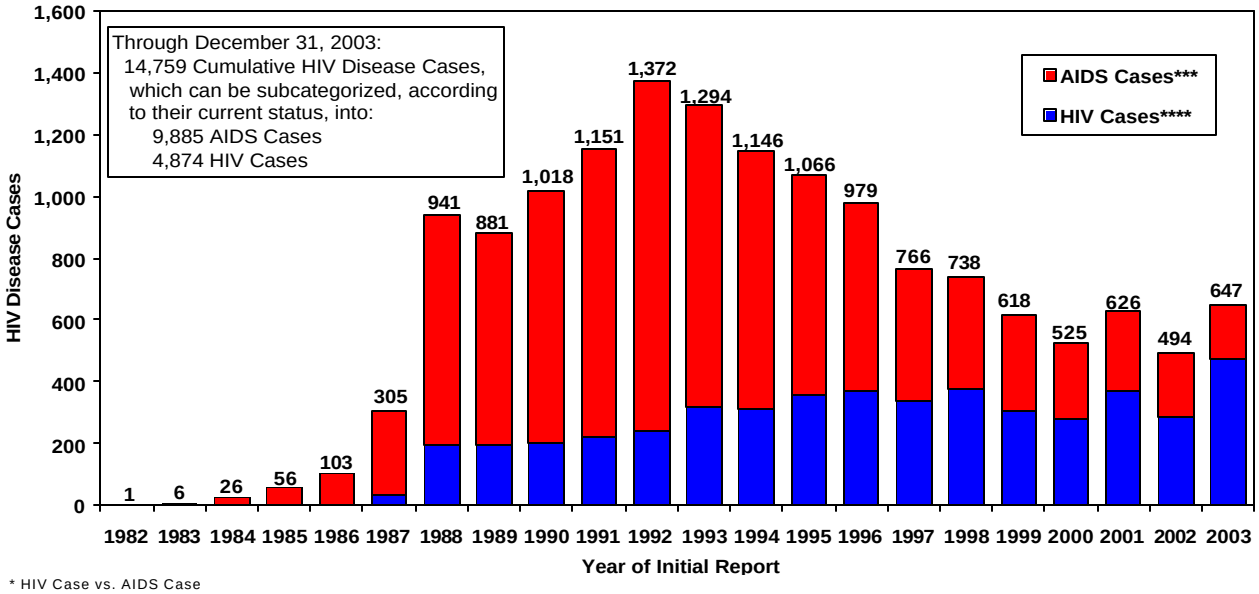
December 2003

Relationship of HIV Disease Cases, HIV Cases, and AIDS Cases



From the time a person is infected with human immunodeficiency virus (HIV) until death, he/she has **HIV Disease**. All persons with HIV Disease can be subclassified as either an **AIDS case** (if they are in the later stages of the disease process and have met the case definition for AIDS) or an **HIV case** (if they are in the earlier stages of the disease process and have not met the AIDS case definition).

Reported HIV Disease Cases by Current Status* and Year of Initial Report**, Missouri 1982-2003



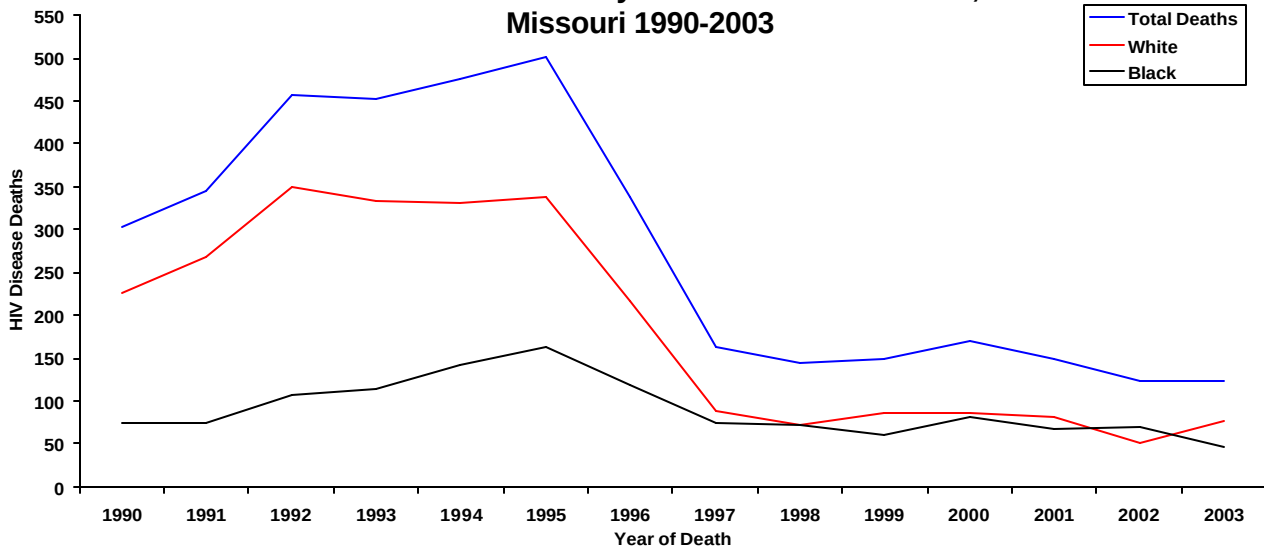
* HIV Case vs. AIDS Case

**Cases are indicated by year of their initial report to the Missouri Department of Health and Senior Services(i.e., by the year in which the first report of the person, whether as an HIV case or an AIDS case, was received by the department.)

*** These cases were either: 1) initially reported as HIV cases and then later reclassified as AIDS cases because they had subsequently come to meet the AIDS case definition; or 2) initially reported as an AIDS case.

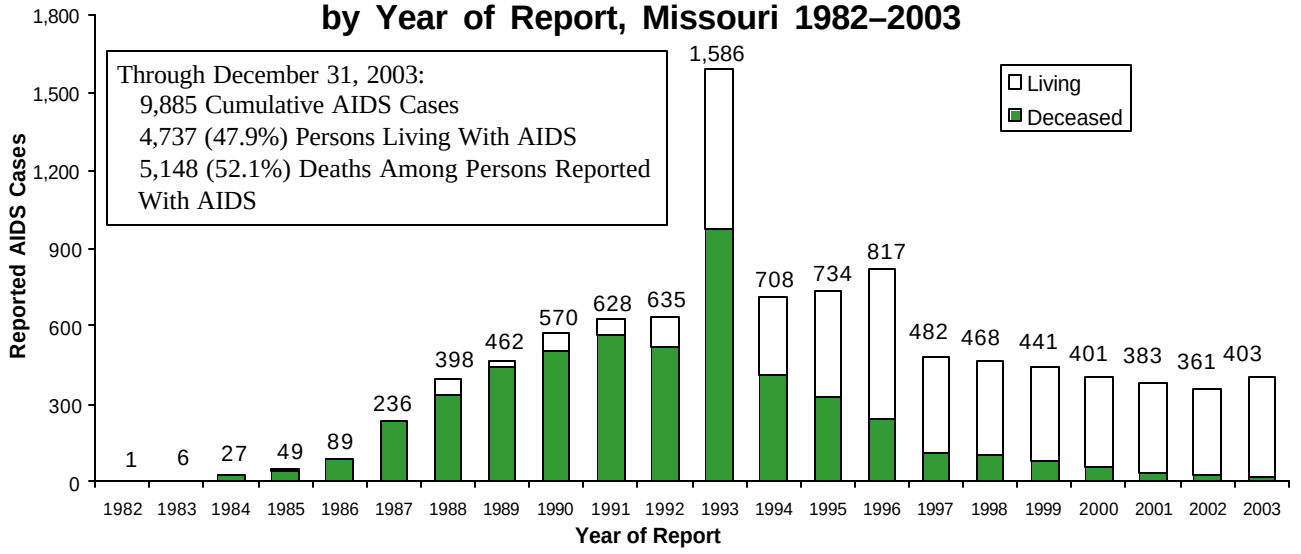
**** These cases were initially reported as HIV cases, and have subsequently remained HIV cases (i.e., they have not met the case definition for AIDS).

HIV Disease Deaths* by Race and Year of Death, Missouri 1990-2003



* Based on death certificate data.

Persons Diagnosed With AIDS (Living and Deceased) by Year of Report, Missouri 1982–2003

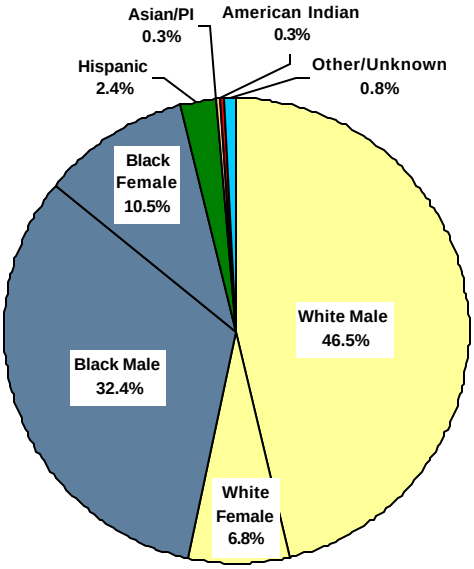


Reported HIV and AIDS Cases by Gender, Race/Ethnicity, and Age at Diagnosis, Missouri 1982–2003

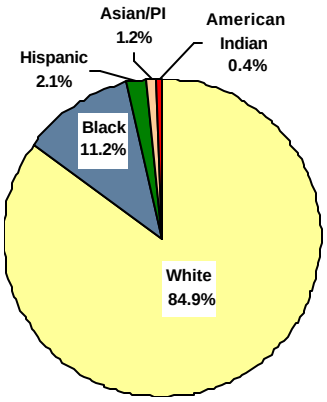
	HIV Cases*				AIDS Cases**				HIV/AIDS Cases	
	Reported 2003		Cumulative*		Reported 2003		Cumulative		Cumulative	
	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
Gender										
Male	371	(78.6%)	4,002	(82.1%)	332	(82.4%)	8,855	(89.6%)	12,857	(87.1%)
Female	101	(21.4%)	872	(17.9%)	71	(17.6%)	1,030	(10.4%)	1,902	(12.9%)
Race/Ethnicity										
White	201	(42.6%)	2,598	(53.3%)	170	(42.2%)	6,266	(63.4%)	8,864	(60.1%)
Black	254	(53.8%)	2,092	(42.9%)	220	(54.6%)	3,350	(33.9%)	5,442	(36.9%)
Hispanic	6	(1.3%)	116	(2.4%)	7	(1.7%)	205	(2.1%)	321	(2.2%)
Asian/Pacific Islander	1	(0.2%)	16	(0.3%)	3	(0.7%)	29	(0.3%)	45	(0.3%)
American Indian	1	(0.2%)	14	(0.3%)	1	(0.2%)	33	(0.3%)	47	(0.3%)
Unknown	9	(1.9%)	38	(0.8%)	2	(0.5%)	2	(0.0%)	40	(0.3%)
Race/Ethnicity and Gender										
White Male	176	(37.3%)	2,265	(46.5%)	162	(40.2%)	5,860	(59.3%)	8,125	(55.1%)
Black Male	179	(37.9%)	1,579	(32.4%)	158	(39.2%)	2,750	(27.8%)	4,329	(29.3%)
Hispanic Male	6	(1.3%)	103	(2.1%)	6	(1.5%)	188	(1.9%)	291	(2.0%)
Asian/Pacific Islander Male	1	(0.2%)	12	(0.2%)	3	(0.7%)	25	(0.3%)	37	(0.3%)
American Indian Male	1	(0.2%)	13	(0.3%)	1	(0.2%)	30	(0.3%)	43	(0.3%)
Unknown Male	8	(1.7%)	30	(0.6%)	2	(0.5%)	2	(0.0%)	32	(0.2%)
White Female	25	(5.3%)	333	(6.8%)	8	(2.0%)	406	(4.1%)	739	(5.0%)
Black Female	75	(15.9%)	513	(10.5%)	62	(15.4%)	600	(6.1%)	1,113	(7.5%)
Hispanic Female	0	(0.0%)	13	(0.3%)	1	(0.3%)	17	(0.2%)	30	(0.2%)
Asian/Pacific Islander Female	0	(0.0%)	4	(0.1%)	0	(0.0%)	4	(0.0%)	8	(0.1%)
American Indian Female	0	(0.0%)	1	(0.0%)	0	(0.0%)	3	(0.0%)	4	(0.0%)
Unknown Female	1	(0.2%)	8	(0.2%)	0	(0.0%)	0	(0.0%)	8	(0.1%)
Age at Diagnosis‡										
<2	1	(0.2%)	32	(0.7%)	0	(0.0%)	34	(0.3%)	66	(0.4%)
2-12	1	(0.2%)	16	(0.3%)	0	(0.0%)	24	(0.2%)	40	(0.3%)
13-19	22	(4.7%)	225	(4.6%)	3	(0.7%)	104	(1.1%)	329	(2.2%)
20-24	66	(14.0%)	749	(15.4%)	23	(5.7%)	582	(5.9%)	1,331	(9.0%)
25-29	79	(16.7%)	1,033	(21.2%)	39	(9.7%)	1,558	(15.8%)	2,591	(17.6%)
30-39	171	(36.2%)	1,855	(38.1%)	176	(43.7%)	4,487	(45.4%)	6,342	(43.0%)
40-49	103	(21.8%)	742	(15.2%)	118	(29.3%)	2,204	(22.3%)	2,946	(20.0%)
50-64	27	(5.7%)	203	(4.2%)	41	(10.2%)	774	(7.8%)	977	(6.6%)
65+	2	(0.4%)	19	(0.4%)	3	(0.7%)	118	(1.2%)	137	(0.9%)
Missouri Total	**472**	**(100.0%)**	**4,874**	**(100.0%)**	**403**	**(100.0%)**	**9,885**	**(100.0%)**	**14,759**	**(100.0%)**

* HIV Cases-Persons with HIV infection who have not developed one of the specific diseases or conditions which would cause them to meet the case definition for AIDS.
** AIDS Cases-Persons with HIV infection who have developed one or more of the specific diseases or conditions which cause them to meet the AIDS case definition.
‡ For HIV Cases, Age at Diagnosis is the age at which the individual was first diagnosed with HIV infection.
For AIDS Cases, Age at Diagnosis is the age at which the individual was first diagnosed with AIDS.

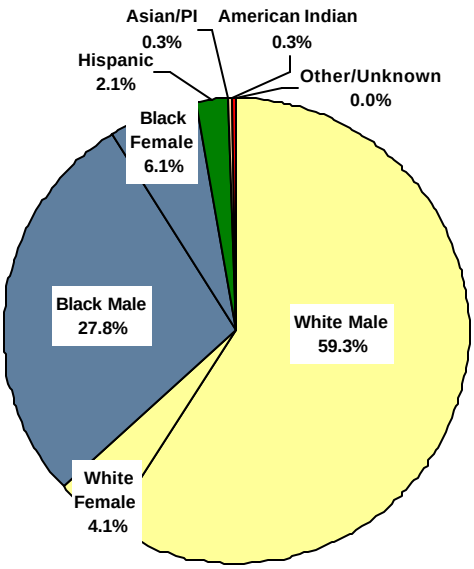
Reported HIV Cases by Race/Ethnicity and (for Whites and Blacks) Gender, Missouri 1985–2003 (n=4,874)



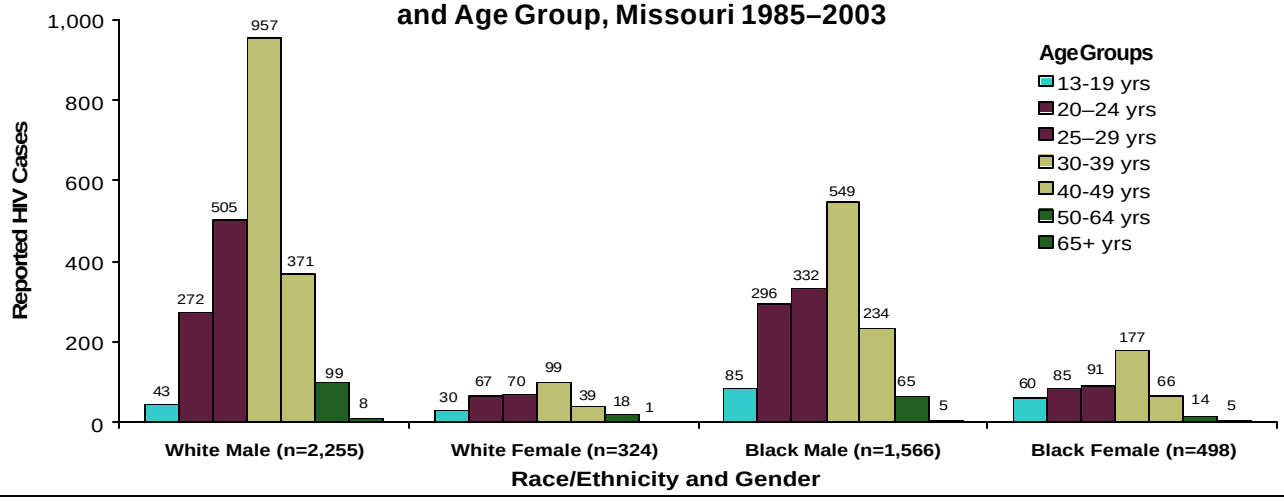
Missouri Population Estimates 2000 (n=5,595,211)



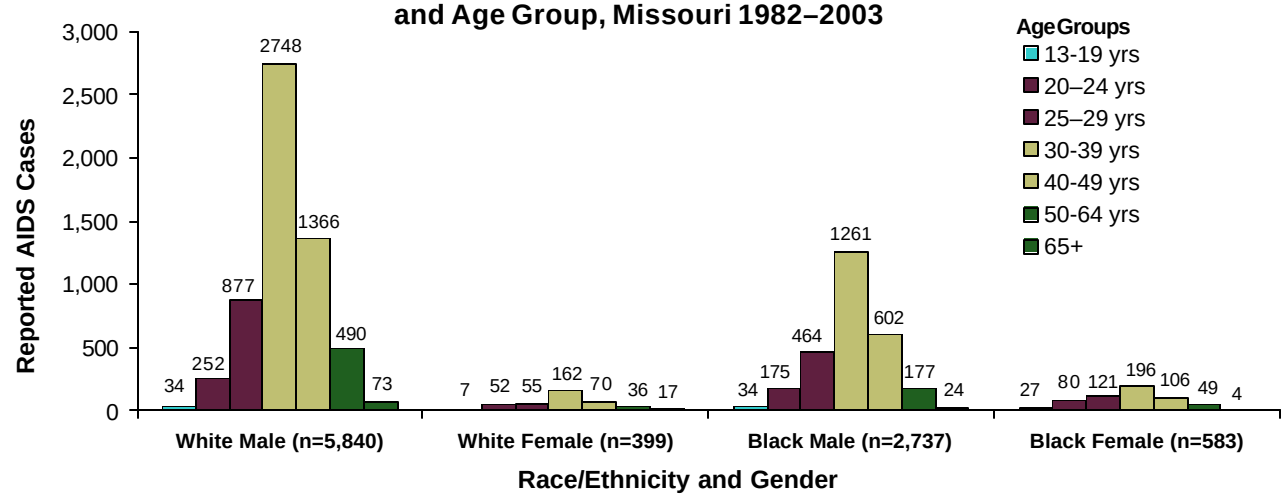
Reported AIDS Cases by Race/Ethnicity and (for Whites and Blacks) Gender, Missouri 1982–2003 (n=9,885)



Reported Adult/Adolescent HIV Cases by Race/Ethnicity, Gender, and Age Group, Missouri 1985–2003



Reported Adult/Adolescent AIDS Cases by Race/Ethnicity, Gender, and Age Group, Missouri 1982–2003

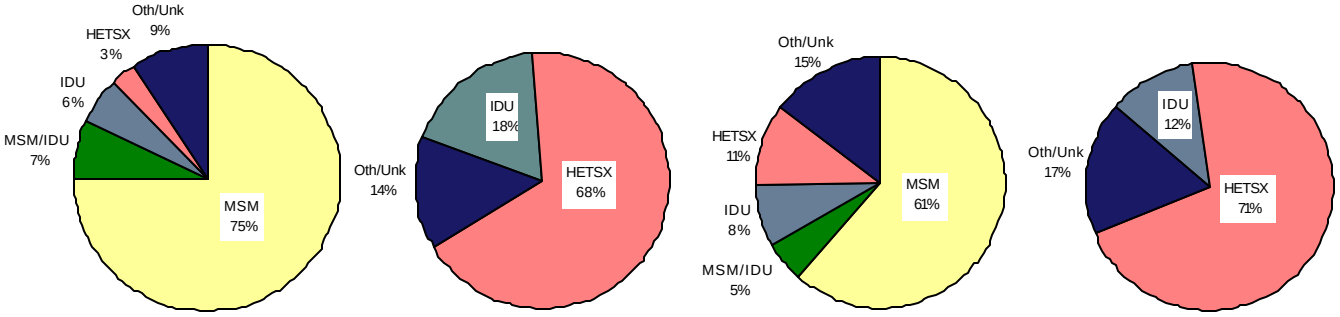


Reported HIV and AIDS Cases by Exposure Category, Missouri 1982–2003

Exposure Category[¶]	HIV Cases* Reported 2003 Cases	%	HIV Cases* Cumulative Cases	%	AIDS Cases** Reported 2003 Cases	%	AIDS Cases** Cumulative Cases	%	HIV/AIDS Cases Cumulative Cases	%
MSM	201	(42.6%)	2,747	(56.4%)	207	(51.4%)	6,709	(67.9%)	9,456	(64.1%)
MSM/IDU	4	(0.8%)	257	(5.3%)	17	(4.2%)	832	(8.4%)	1,089	(7.4%)
IDU	17	(3.6%)	391	(8.0%)	23	(5.7%)	736	(7.4%)	1,127	(7.6%)
Heterosexual Contact	65	(13.8%)	827	(17.0%)	69	(17.1%)	938	(9.5%)	1,765	(12.0%)
Adult Hemophiliac	0	(0.0%)	27	(0.6%)	3	(0.7%)	152	(1.5%)	179	(1.2%)
Adult Transfusion	0	(0.0%)	13	(0.3%)	1	(0.2%)	103	(1.0%)	116	(0.8%)
Other/Unknown Adult	183	(38.8%)	564	(11.6%)	83	(20.6%)	343	(3.5%)	907	(6.1%)
Perinatal Transmission	2	(0.4%)	41	(0.8%)	0	(0.0%)	48	(0.5%)	89	(0.6%)
Other/Unknown Pediatric	0	(0.0%)	7	(0.1%)	0	(0.0%)	24	(0.2%)	31	(0.2%)
Missouri Total	**472**	**(100.0%)**	**4,874**	**(100.1%)**	**403**	**(99.9%)**	**9,885**	**(99.9%)**	**14,759**	**(100.0%)**

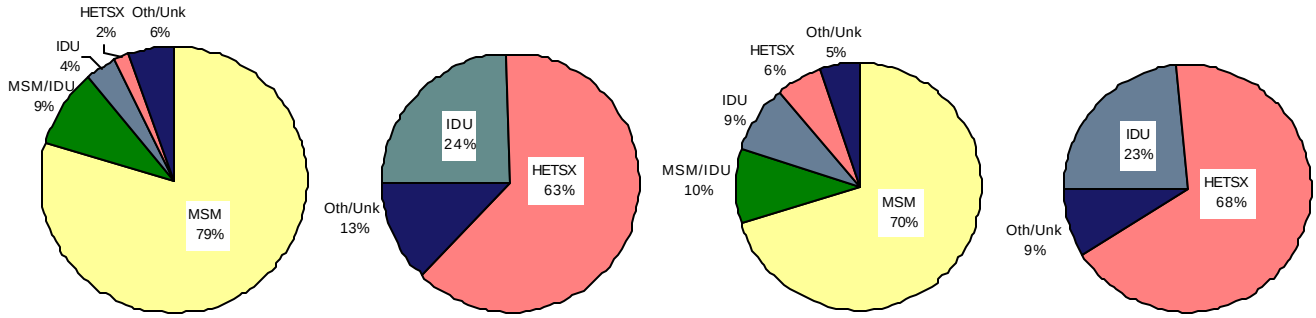
*HIV Cases-Persons with HIV infection who have not developed one of the specific diseases or conditions which would cause them to meet the case definition for AIDS.
**AIDS Cases-Persons with HIV infection who have developed one or more of the specific diseases or conditions which cause them to meet the AIDS case definition.
[¶] MSM=men who have sex with men; MSM/IDU=men who have sex with men and inject drugs; IDU=injecting drug users

Reported Adult/Adolescent HIV Cases by Exposure Category[¶], Missouri 1985-2003



White Male (n=2,255) White Female (n=324) Black Male (n=1,566) Black Female (n=498)

Reported Adult/Adolescent AIDS Cases by Exposure Category[¶], Missouri 1982-2003



White Male (n=5,832) White Female (n=398) Black Male (n=2,734) Black Female (n=581)

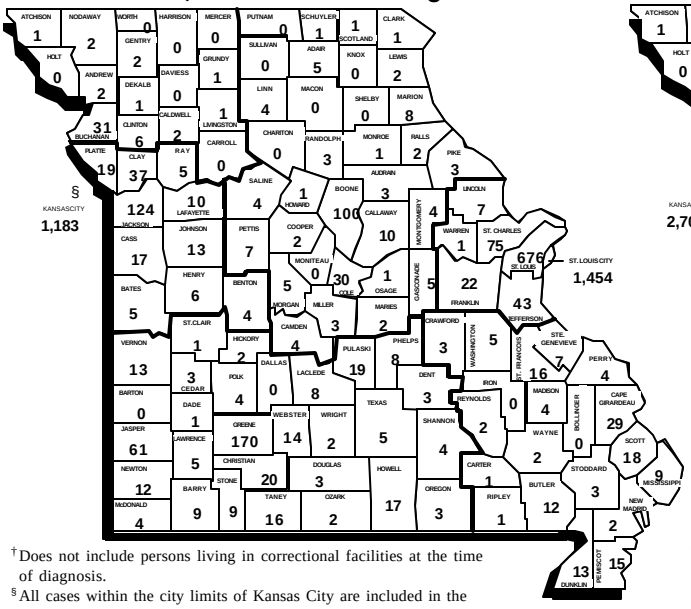
[¶]MSM=men who have sex with men; MSM/IDU=men who have sex with men and inject drugs; IDU=injecting drug users; HETSX=heterosexual contact; Oth/Unk=Other/Unknown

Reported HIV and AIDS Cases and Rates by Area of Residence at Time of Diagnosis, Missouri 1982–2003

Geographic Area	HIV Cases* Reported 2003 Cases	%	Rate***	HIV Cases* Cumulative Cases	%	AIDS Cases** Reported 2003 Cases	%	Rate***	AIDS Cases** Cumulative Cases	%
Location										
St. Louis City[†]	199	(42.2%)	57.2	1,454	(29.8%)	144	(35.7%)	41.4	2,839	(28.7%)
St. Louis County[†]	80	(16.9%)	7.9	676	(13.9%)	49	(12.2%)	4.8	1,516	(15.3%)
Kansas City[†]	85	(18.0%)	19.3	1,183	(24.3%)	90	(22.3%)	20.4	2,705	(27.4%)
Outstate[†]	75	(15.9%)	2.0	1,213	(24.9%)	90	(22.3%)	2.4	2,564	(25.9%)
Missouri Correctional Facilities[††]	33	(7.0%)	--	348	(7.1%)	30	(7.4%)	--	261	(2.6%)
Missouri Total	**472**	**(100.0%)**	**8.4**	**4,874**	**(100.0%)**	**403**	**(99.9%)**	**7.2**	**9,885**	**(99.9%)**

*HIV Cases-Persons with HIV infection who have not developed one of the specific diseases or conditions which would cause them to meet the case definition for AIDS.
**AIDS Cases-Persons with HIV infection who have developed one or more of the specific diseases or conditions which cause them to meet the AIDS case definition.
***Per 100,000 population, based on 2000 population estimates.
[†]Does not include persons living in correctional facilities at the time of diagnosis. These persons are included in the "Missouri Correctional Facilities" category.
[††]Includes state, county and local correctional facilities.

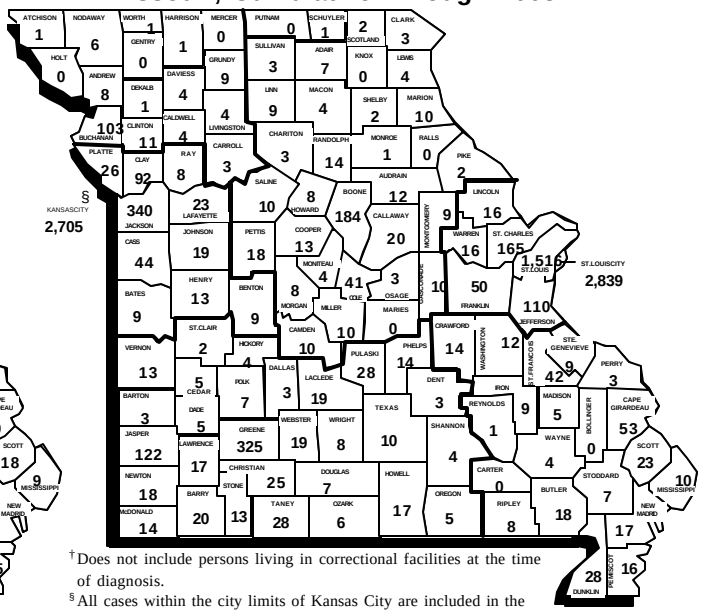
Reported HIV Cases by County of Residence at Time of Diagnosis† Missouri, Cumulative Through 2003



†Does not include persons living in correctional facilities at the time of diagnosis.

§All cases within the city limits of Kansas City are included in the totals for Kansas City. Cases indicated in Jackson, Clay and Platte counties are outside the city limits of Kansas City.

Reported AIDS Cases by County of Residence at Time of Diagnosis† Missouri, Cumulative Through 2003



†Does not include persons living in correctional facilities at the time of diagnosis.

§All cases within the city limits of Kansas City are included in the totals for Kansas City. Cases indicated in Jackson, Clay and Platte counties are outside the city limits of Kansas City.

Reported HIV Cases by Race/Ethnicity and Area of Residence at Time of Diagnosis, Missouri, 2003

Geographic Area	Total 2003 Cases	Total Rate*	White 2003 Cases	White Rate*	Black 2003 Cases	Black Rate*	Hispanic 2003 Cases	Hispanic Rate*
St. Louis City†	199	57.2	64	41.9	128	71.8	2	28.5
St. Louis County†	80	7.9	35	4.5	38	19.7	3	20.6
Kansas City†	85	19.3	36	13.4	47	34.1	1	3.3
Outstate†	75	2.0	56	1.6	19	15.8	0	0.0
Missouri Correctional Facilities††	33	--	10	--	22	--	0	--
Missouri Total	**472**	**8.4**	**201**	**4.2**	**254**	**40.6**	**6**	**5.1**

*Per 100,000 population, based on 2000 U.S. Census.

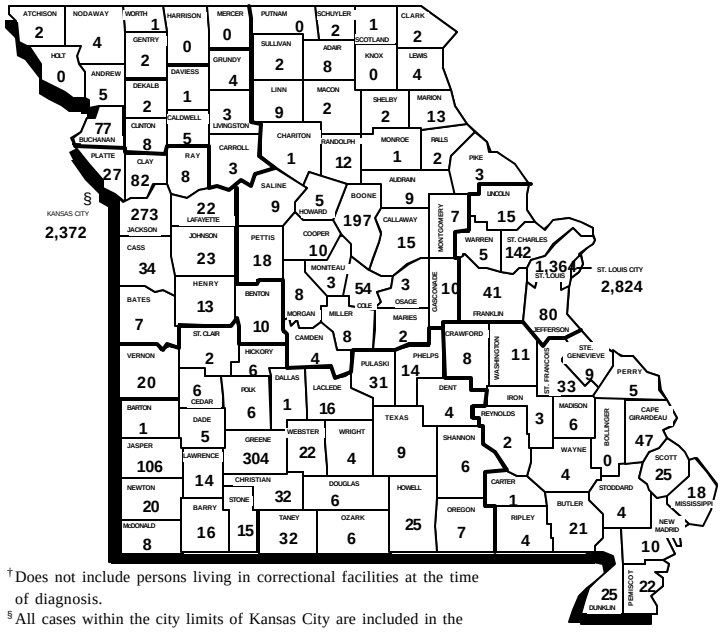
†Does not include persons living in correctional facilities at the time of diagnosis. These persons are included in the "Missouri Correctional Facilities" category.

††Includes state, county and local correctional facilities.

Living HIV-Diagnosed Persons (HIV and AIDS Cases) Who Were Residents of Missouri at the Time of Diagnosis, and Who Were Reported Through 2003, by Gender and Race/Ethnicity

	Living HIV-Diagnosed Persons	%
Gender		
Male	7,944	84.4%
Female	1,469	15.6%
Race/Ethnicity		
White	5,182	55.1%
Black	3,910	41.5%
Hispanic	221	2.3%
Asian/Pacific Islander	31	0.3%
American Indian	30	0.3%
Unknown	39	0.4%
Race/Ethnicity and Gender		
White Male	4,645	49.3%
Black Male	3,021	32.1%
Hispanic Male	195	2.1%
Asian/Pacific Islander Male	23	0.2%
American Indian Male	29	0.3%
Unknown Male	31	0.3%
White Female	537	5.7%
Black Female	889	9.4%
Hispanic Female	26	0.3%
Asian/Pacific Islander Female	8	0.1%
American Indian Female	1	0.0%
Unknown Female	8	0.1%
Total Living HIV-Diagnosed Persons	**9,413**	**100.0%**

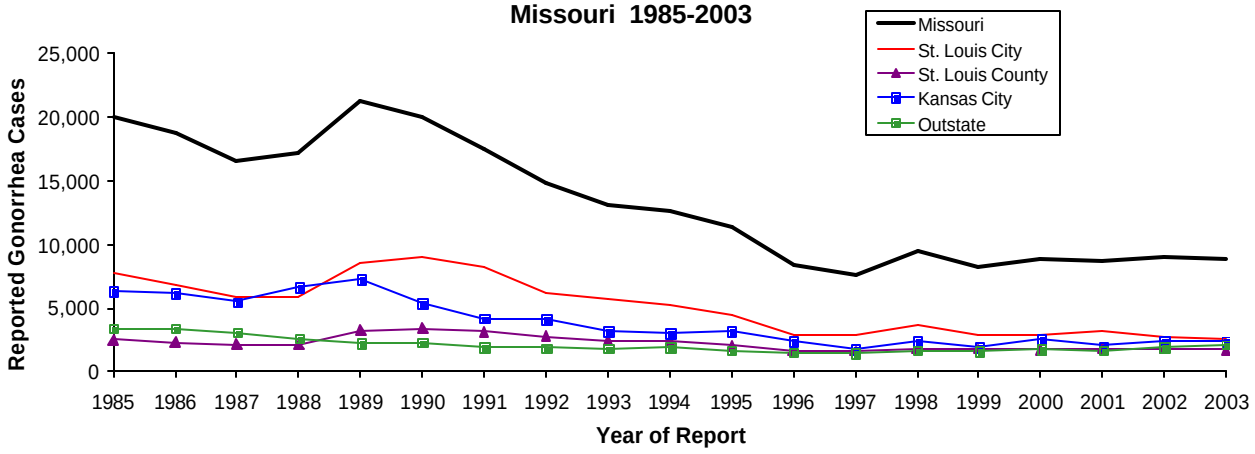
Living HIV-Diagnosed Persons (HIV and AIDS Cases), Reported Through 2003, by County of Residence† at Time of Diagnosis



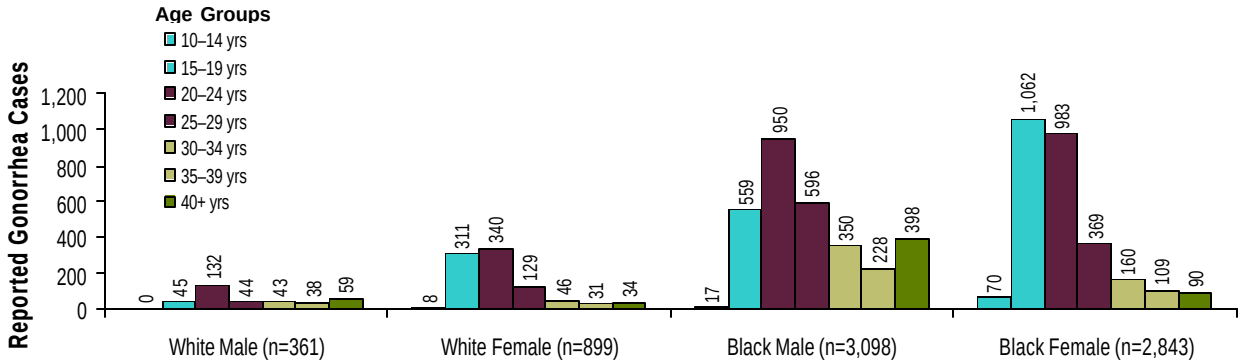
†Does not include persons living in correctional facilities at the time of diagnosis.

§All cases within the city limits of Kansas City are included in the totals for Kansas City. Cases indicated in Jackson, Clay and Platte counties are outside the city limits of Kansas City.

Reported Gonorrhea Cases by Geographic Area and Year of Report, Missouri 1985-2003



Reported Gonorrhea Cases by Race, Gender and Age Group, Missouri 2003



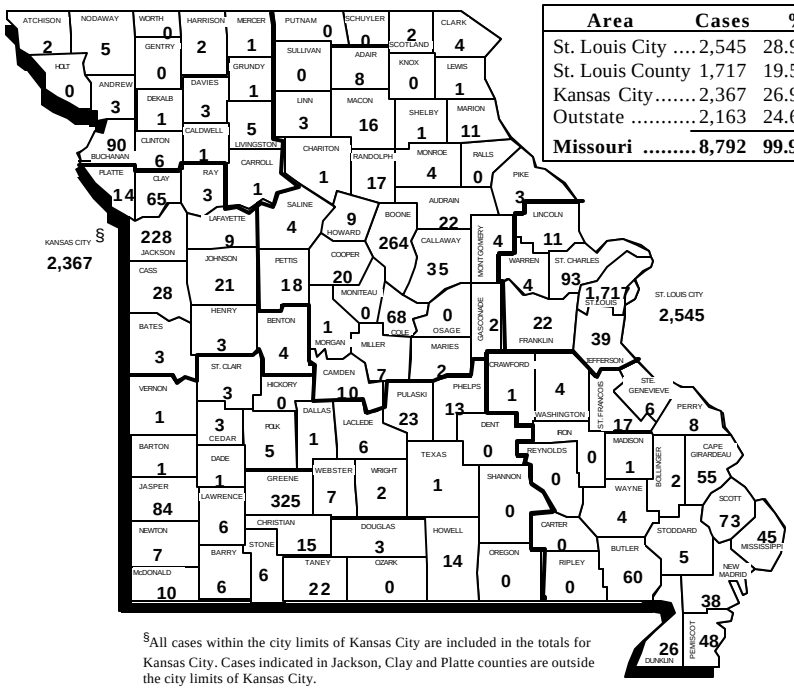
Other/Unknown (n=1,591)

Reported Gonorrhea Cases and Rates by Geographic Area, Missouri 2003

	Cases	%	Rate*
Missouri			
Whites	1,271	14.5%	26.8
Blacks	5,965	67.8%	947.7
Other/Unknown	1,556	17.7%	--
Total Cases	**8,792**	**100.0%**	**157.1**
St. Louis City			
Whites	82	3.2%	53.7
Blacks	2,261	88.8%	1268.3
Other/Unknown	202	7.9%	--
Total Cases	**2,545**	**99.9%**	**730.9**
St. Louis County			
Whites	71	4.1%	9.1
Blacks	1,149	66.9%	594.4
Other/Unknown	497	28.9%	--
Total Cases	**1,717**	**99.9%**	**168.9**
Kansas City			
Whites	215	9.1%	80.3
Blacks	1,780	75.2%	1291.1
Other/Unknown	372	15.7%	--
Total Cases	**2,367**	**100.0%**	**536.2**
Outstate			
Whites	903	41.7%	25.5
Blacks	775	35.8%	646.1
Other/Unknown	485	22.4%	--
Total Cases	**2,163**	**99.9%**	**57.1**

*Per 100,000 population

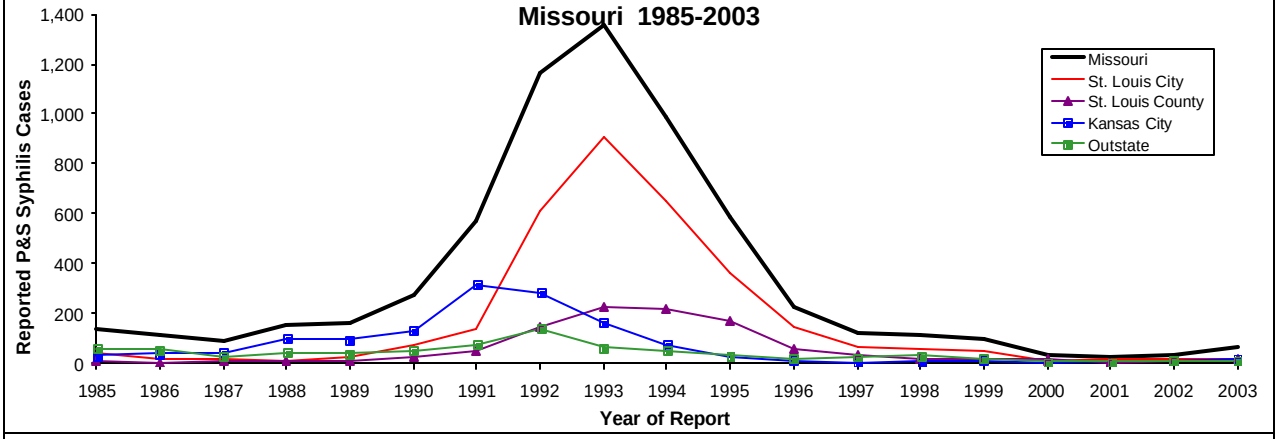
Reported Gonorrhea Cases by County, Missouri 2003



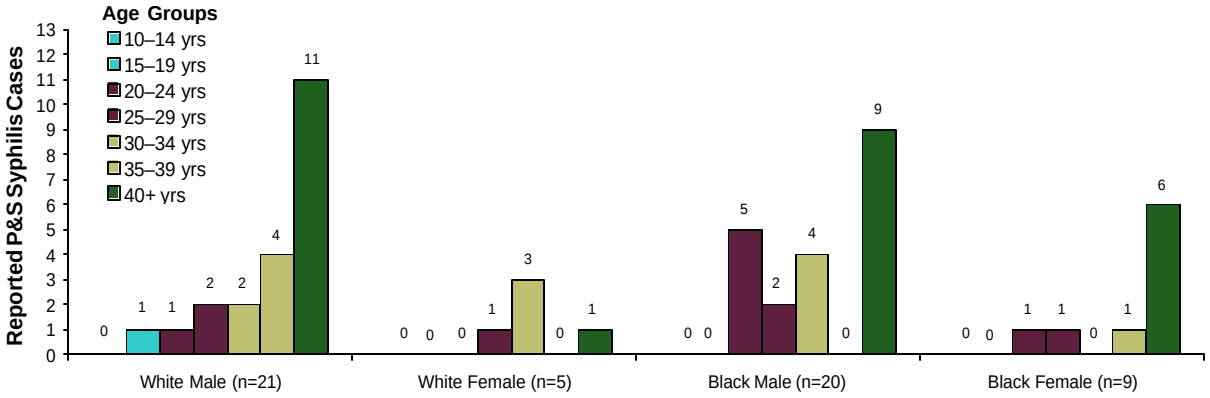
Area	Cases	%
St. Louis City	2,545	28.9%
St. Louis County	1,717	19.5%
Kansas City	2,367	26.9%
Outstate	2,163	24.6%
Missouri	**8,792**	**99.9%**

§All cases within the city limits of Kansas City are included in the totals for Kansas City. Cases indicated in Jackson, Clay and Platte counties are outside the city limits of Kansas City.

Reported P&S Syphilis Cases by Geographic Area and Year of Report, Missouri 1985-2003



Reported P&S Syphilis Cases by Race, Gender and Age Group, Missouri 2003



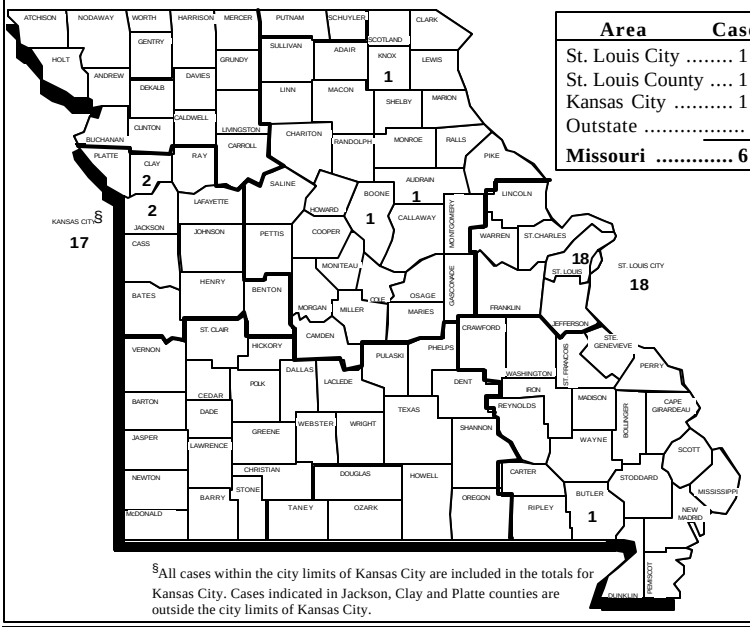
Other/Unknown (n=6)

Reported P&S Syphilis Cases and Rates by Geographic Area, Missouri 2003

	Cases	%	Rate*
Missouri			
Whites	26	42.6%	0.5
Blacks	29	47.5%	4.6
Other/Unknown	6	9.8%	--
Total Cases	**61**	**99.9%**	**1.1**
St. Louis City			
Whites	7	38.9%	4.6
Blacks	11	61.1%	6.2
Other/Unknown	0	0.0%	--
Total Cases	**18**	**100.0%**	**5.2**
St. Louis County			
Whites	7	38.9%	0.9
Blacks	5	27.8%	2.6
Other/Unknown	6	33.3%	--
Total Cases	**18**	**100.0%**	**1.8**
Kansas City			
Whites	5	29.4%	1.9
Blacks	12	70.6%	8.6
Other/Unknown	0	0.0%	--
Total Cases	**17**	**100.0%**	**3.9**
Outstate			
Whites	7	87.5%	0.2
Blacks	1	12.5%	0.8
Other/Unknown	0	0.0%	--
Total Cases	**8**	**100.0%**	**0.2**

*Per 100,000 population

Reported P&S Syphilis Cases by County, Missouri 2003



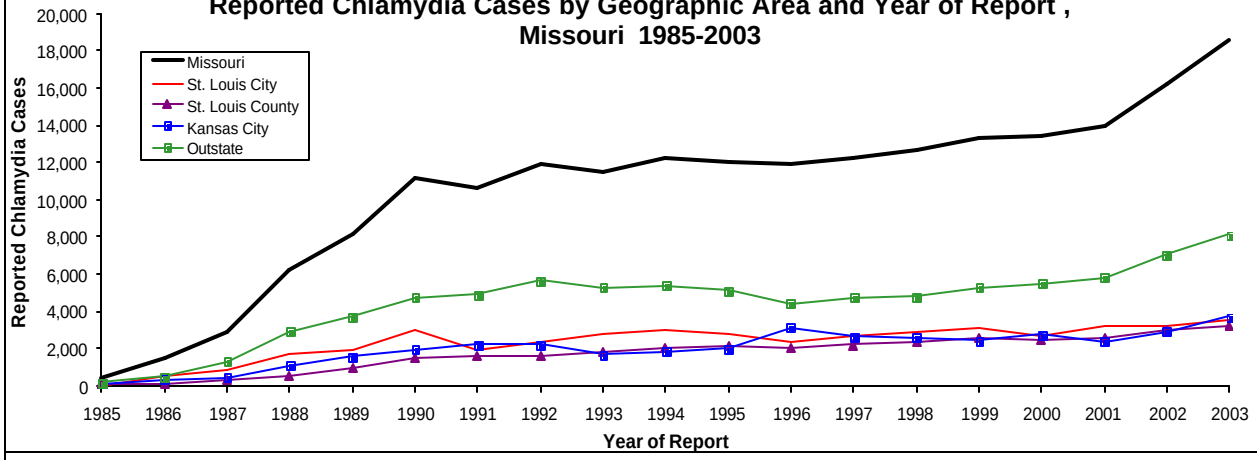
Area	Cases	%
St. Louis City	18	29.5%
St. Louis County	18	29.5%
Kansas City	17	27.9%
Outstate	8	13.1%
Missouri	**61**	**100.0%**

§All cases within the city limits of Kansas City are included in the totals for Kansas City. Cases indicated in Jackson, Clay and Platte counties are outside the city limits of Kansas City.

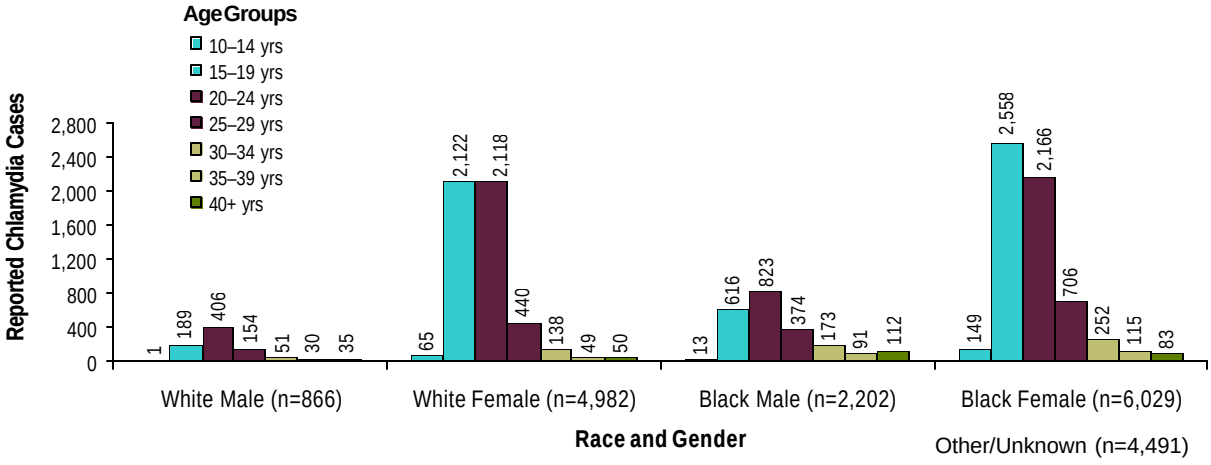
4 **Congenital Syphilis** cases were reported in 2003.

1 (25.0%) Clay County
1 (25.0%) St. Louis County
1 (25.0%) Kansas City
1 (25.0%) St. Louis City

Reported Chlamydia Cases by Geographic Area and Year of Report , Missouri 1985-2003



Reported Chlamydia Cases by Race, Gender and Age Group, Missouri 2003

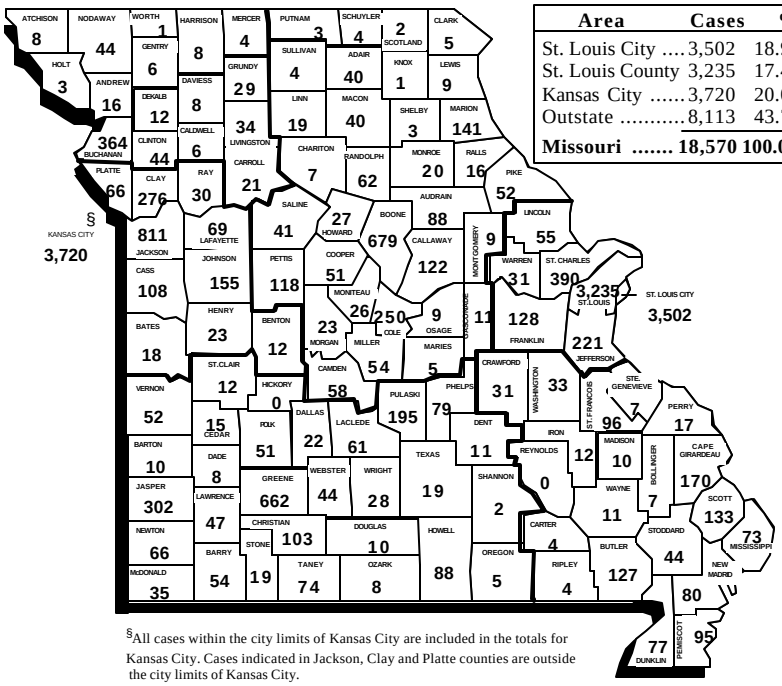


Reported Chlamydia Cases and Rates by Geographic Area, Missouri 2003

	Cases	%	Rate*
Missouri			
Whites	5,883	31.7%	123.9
Blacks	8,266	44.5%	1313.3
Other/Unknown	4,421	23.8%	--
Total Cases	**18,570**	**100.0%**	**331.9**
St. Louis City			
Whites	209	6.0%	136.9
Blacks	2,824	80.6%	1584.1
Other/Unknown	469	13.4%	--
Total Cases	**3,502**	**100.0%**	**1005.8**
St. Louis County			
Whites	333	10.3%	42.6
Blacks	1,694	52.4%	876.3
Other/Unknown	1,208	37.3%	--
Total Cases	**3,235**	**100.0%**	**318.3**
Kansas City			
Whites	523	14.1%	195.3
Blacks	2,312	62.2%	1676.9
Other/Unknown	885	23.8%	--
Total Cases	**3,720**	**100.1%**	**842.7**
Outstate			
Whites	4,818	59.4%	135.8
Blacks	1,436	17.7%	1197.2
Other/Unknown	1,859	22.9%	--
Total Cases	**8,113**	**100.0%**	**214.1**

*Per 100,000 population

Reported Chlamydia Cases by County, Missouri 2003



Area	Cases	%
St. Louis City	3,502	18.9%
St. Louis County	3,235	17.4%
Kansas City	3,720	20.0%
Outstate	8,113	43.7%
Missouri	**18,570**	**100.0%**

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